

REPORT

Northfleet Central 1 Limited

Northfleet Harbourside, Gravesham

August 2023

Gravesham Borough Council

Transport Assessment Addendum

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1 Introduction

Preamble

- 1.1 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.
- 1.2 This Transport Assessment Addendum has been prepared in order to address comments raised by Kent County Council (KCC) (10th February 2023), Gravesham Borough Council (GBC) (Avison Young response prepared on behalf of GBC dated May 2023) and National Highways (NH) (5th December) 2022 in response to the Transport Assessment submitted in September 2022 to support the planning 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.
- 1.3 This Addendum will also present updated modelling results informed by the Kent Transport Model (KTM). The comments made by KCC, GBC and NH are presented at **Appendix A**.
- 1.4 Furthermore, a reference sheet outlining the comments made by each of the consultees and the location of the response to each comment is presented at **Appendix B**.

Site Location

- 1.5 The site is located within Northfleet, 4.5km to the west of Gravesend town centre and 7.7km to the east of Dartford town centre.

Outline Development Proposals

- 1.6 The development proposals have not changed since the submission of the planning application and therefore remain as set out by the Transport Assessment which is as follows:
 - 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.

- 1.7 As previously advised, the retail floor area cannot be delivered as a single large unit as a supermarket due to the parameters set through the application.

Consultation

- 1.8 This Addendum has been prepared in consideration of on-going consultation with KCC, GBC and NH.

Report Context

- 1.9 This Addendum should be read in conjunction with the Transport Assessment submitted in support of the planning application (ref. R03-BH-Transport Assessment).

2 Existing Conditions

Overview

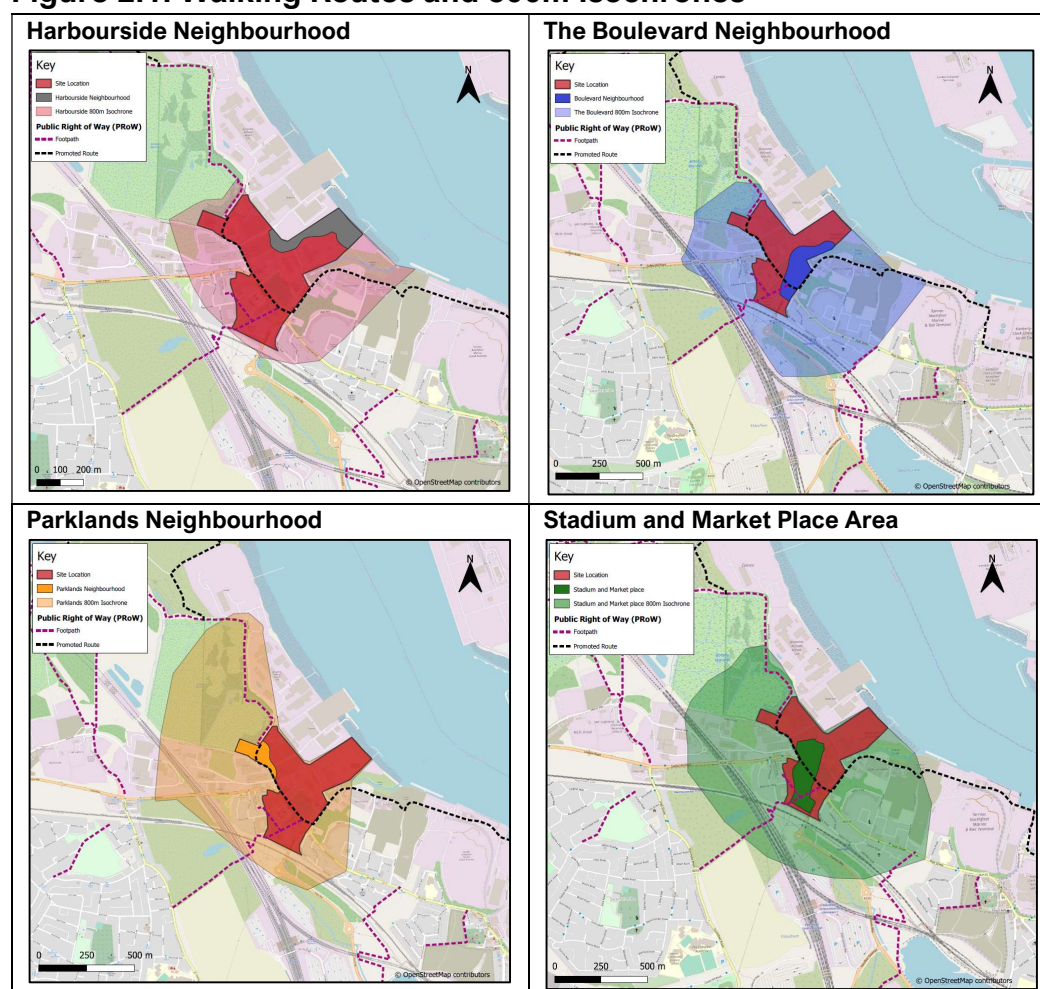
- 2.1 Following consultation responses from KCC, we have provided a more granular level of analysis of the existing conditions on and surrounding the proposed site. These updates and additions are provided within this section below and subsequent appendices.

Active Travel

Walking

- 2.2 As outlined within the Transport Assessment pedestrian footways and PROWs are present in the local area which help to support pedestrian movement in the area. To supplement the 2km walking isochrones presented within the Transport Assessment, 800m isochrones have been prepared, and are shown at **Figure 2.1** below.

Figure 2.1: Walking Routes and 800m Isochrones



- 2.3 Full size plans are provided in **Appendix C**.

Public Transport

Bus Services

- 2.4 There are multiple bus stops located within walking distance of the site, including the Ebbsfleet United Football Ground bus stop located along the A226 directly adjacent to the existing football ground. A second bus stop, Taunton Road is located along the A226 approximately 200m north of the Ebbsfleet United Football Ground. Both bus stops provide raised kerbs and timetables.
- 2.5 Pedestrians can access the Taunton Road bus stop on foot using the pedestrian footways present on both the northern and southern sides of the A226 carriageway. These footways are generally wide and well surfaced, with dropped kerbs and street lighting throughout. Additional protective barriers are in place around the Lower Road junction to provide additional protection to pedestrians.
- 2.6 Those accessing eastbound services from this stop will travel along the northern footway and will need to cross Lower Road which is located between the site and Taunton Road bus stop. This road has no dedicated pedestrian crossing however this is not considered to be a notable concern as Lower Road solely acts as an access to the industrial area to the north and as such has low traffic flows.
- 2.7 In order to access the westbound services, pedestrians will need to cross the road at the pedestrian crossing located immediately to the west of the Grove Road/Stonebridge Road/A226 roundabout. This crossing point has a central reservation and protective metal barriers.

Rail Services

- 2.8 As outlined within the Transport Assessment the site is located in close proximity to Northfleet Station and Ebbsfleet International.
- 2.9 Northfleet Station is located within walking distance of the site and benefits from customer help points, CCTV and ramps for train access. Furthermore, staff help is available Monday to Friday 6:10-22:10 via a helpline contact number. There are currently no dedicated cycling routes to the station, with cyclists required to travel on road on the B2175 and Station Road / Railway Street / Hamerton Road.
- 2.10 If improvements to the cycle infrastructure are sought for Northfleet Station by KCC or GBC then this could be achieved through Section 106 contributions as the station is not located within the site boundary. The same would be the case for any improvements to pedestrian or cycle links between the site and Northfleet Station, or any other local amenities. In any case, a walking and cycling assessment has been undertaken for the site with the results presented at **Appendix D**.

Local Highway Network

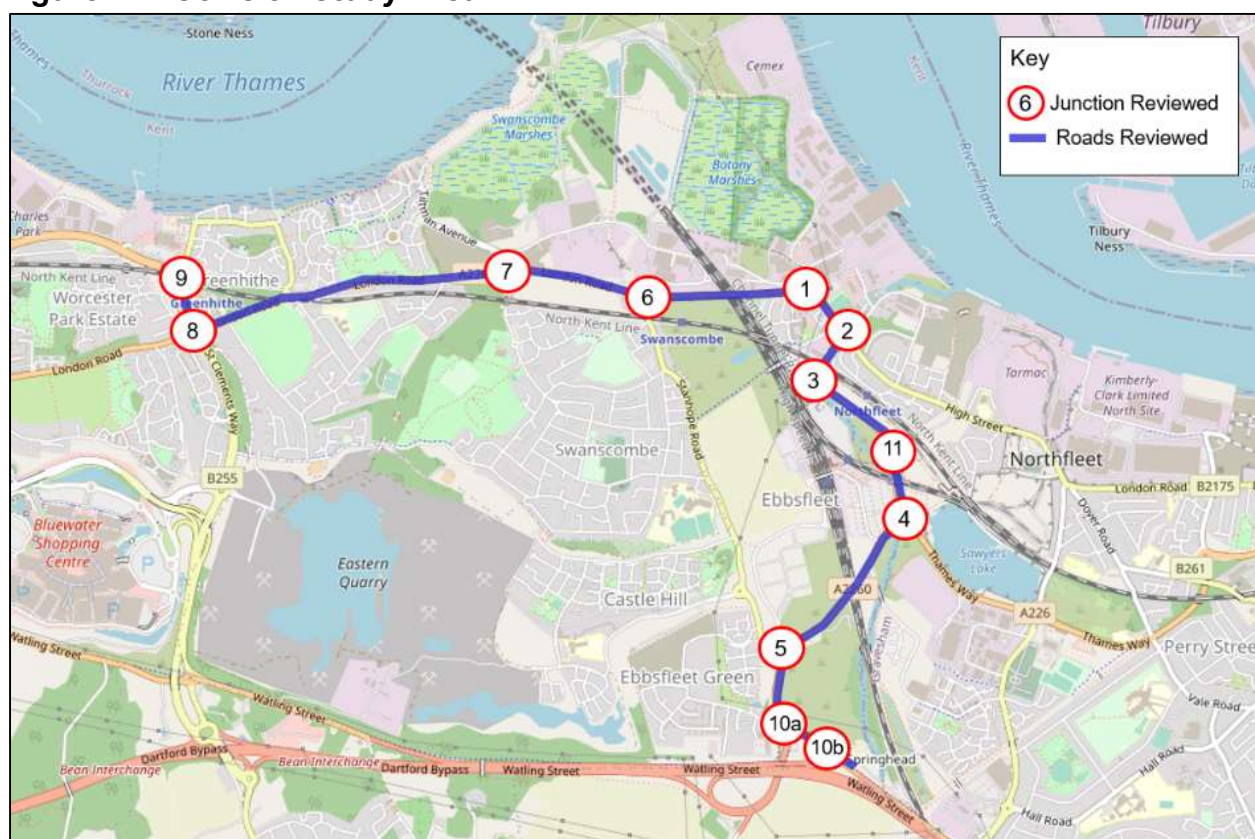
Road Safety Review

- 2.11 CrashMap data was used within the Transport Assessment to review the accidents within the local highway network as part of the original submission. KCC advised that this was not to a sufficient level

of detail and as such, as part of this Addendum the KCC collision data has been reviewed. The KCC data is presented within **Appendix E** of the Transport Assessment.

The personal injury accidents over the past five years have been reviewed using data provided by KCC for the period 2017-2022. The study area and junctions reviewed remain unchanged from the Transport Assessment, these are shown at **Figure 2.2** below.

Figure 2.2: Collision Study Area



- 2.12 The methodology for assessing the PIA data remains the same to that completed for the submitted Transport Assessment. Each junction has been reviewed individually to ascertain if there are any design flaws that could be attributed to the accidents occurring. Across the extent of assessment (shown in **Figure 2.2**), there were a total of 93 accidents reported across the five-year period. 77 of these incidents were classed as slight, 15 were classed as serious and one was classed as fatal. The majority of these incidents (50) occurred at the junctions outlined above, with the remainder (43) occurring on links between junctions.
- 2.13 **Table 2.1** overleaf shows the breakdown of when incidents across the assessment area occurred and their severity.

Table 2.1: Accident Data

Severity of Incident	Number of Accidents						
	2017	2018	2019	2020	2021	2022	Total
Junctions							
Slight	5	10	8	7	9	5	44
Serious	1	1	1	2	1	0	6
Fatal	0	0	0	0	0	0	0
Links							
Slight	5	5	7	5	8	3	33
Serious	1	1	1	4	1	1	9
Fatal	1	0	0	0	0	0	1
Total							
Slight	10	15	15	12	17	8	77
Serious	2	2	2	6	2	1	15
Fatal	1	0	0	0	0	0	1
Total	13	17	17	18	19	9	93

- 2.14 As presented in **Table 2.1**, the number of incidents occurring across the local highway network remains relatively constant each year, with between 13 and 19 incidents occurring across all junctions and links between 2017 and 2021. The significant majority of the incidents recorded were classified as slight with a single fatal incident recorded on the network across the five-year period.
- 2.15 The one fatal incident recorded occurred along London Road, adjacent to 'The Avenue' bus stop. The records reports that after getting off a bus, the pedestrian stumbled into the road and was subsequently struck by the bus as it left the stop. This incident was caused by unexpected events and cannot be attributed to an inherent design issue with the road network. Furthermore, a review of the footway identifies that it is of good quality with no trip hazards present.
- 2.16 With regard to the junctions outlined within **Figure 2.2**, the number and type of collisions have been reviewed. The results are shown at **Table 2.2** overleaf.

Table 2.2: Junction Specific Accident Data

Junction Reference	Severity Of Accident			
	Slight	Serious	Fatal	Total
1	5	0	0	5
2	2	0	0	2
3	1	0	0	1
4	2	0	0	2
5	1	0	0	1
6	6	1	0	7
7	4	1	0	5
8	13	2	0	15
9	5	0	0	5
10a	2	1	0	3
10b	3	1	0	4
Total	44	6	0	50

- 2.17 As shown by the results in **Table 2.2**, the majority of junctions experienced a very low number of incidents. A low number of incidents over a five-year period suggests that there is not an inherent issue with the existing junction designs. Furthermore, across all the junctions, with the exception of Junction 8, over the five-year period there was a maximum of just one serious incident recorded.
- 2.18 The greatest number of incidents were identified at Junction 8 (London Road/B255/St Clements Way roundabout). Here a total of 15 incidents were recorded, 13 of which were slight and two of which were serious. A review of the accident descriptions clearly shows that the incidents at this junction were due to a lack of due care and attention from drivers and dangerous driving. The accident descriptions include failure to stop at red lights, a 'lapse in concentration' and loss of vehicle control.
- 2.19 The three junctions closest to the site (junctions 1, 2 and 3) experienced very low accident numbers with just 5, 2 and 1 slight incident(s) occurring at each of them respectively over the five-year period. This very low number of incidents suggests that there are minimal safety concerns at the junctions closest to the site.

Summary

- 2.20 The road safety review determined that across the assessment area there were a total of 93 incidents between 2017 and 2022. These comprised of 77 slight incidents, 15 serious incidents and one fatal incident.
- 2.21 The majority of the incidents occurred at the junctions outlined within **Figure 2.2**, with the great number of incidents (15) occurring at the London Road/B255/St Clements Way roundabout.

3 Planning Policy

- 3.1 This section of the report considers the relevant current and emerging land use and transport planning policies in relation to the development proposals.
- 3.2 To supplement the policies outlined within the Transport Assessment, a number of not yet adopted Gravesham Borough Council policy documents have been reviewed. These are outlined below.

National Policy

National Planning Policy Framework (NPPF)(July 2021)

- 3.3 The proposals at the site align with the policies and key points outlined within the NPPF. Excellent access to public transport services for all users is proposed with the Fastrack bus route proposed to travel through and stop within the site itself.
- 3.4 Furthermore, the proposed site will be highly permeable to pedestrians and cyclists who will benefit from a network of footways and cycle routes through the site. These routes will include for step free and allow pedestrians with limited mobility or disabilities to easily travel through the site in all directions. Specific details of the routeing and provisions will be secured through subsequent Reserved Matters applications for the development as the on-site details remain parameters for the purpose of this outline application.
- 3.5 A suitable provision of EV parking spaces will be provided within the site to help support the transition to electric vehicles.
- 3.6 Within the Transport Assessment, and this Addendum, the impact of the development on the local highway network has been and is further assessed. This assessment includes standalone junction modelling based upon outputs from the strategic KTM. The results of this modelling outline that the impact the site would have on the local highway network is not severe. This therefore ensures that the local highway network is not negatively impacted by the proposed site and development proposals.

Regional Policy

Kent Local Transport Plan 4: Delivering Growth without Gridlock (2016-2031)

- 3.7 The proposals at the site comply with the policies and objectives outlined within this document.
- Outcome 1: Policy: Deliver resilient transport infrastructure and schemes that reduce congestion and improve journey time reliability to enable economic growth and appropriate development, meeting demand from a growing population.
- 3.8 The proposals comply with this policy as the proposed vehicle trips have been reviewed and junctions modelled to ensure that the impact of the development does not induce significant levels of congestion or reduce the reliability of journey times.

- Outcome 2: Policy: Promote affordable, accessible and connected transport to enable access for all to jobs, education, health and other services.

3.9 The proposals at the site provide excellent access to public transport services whilst also supporting travel by active travel modes. Such proposals help to ensure that access to jobs, education, health and other services is affordable for residents.

- Outcome 3: Policy: Provide a safer road, footway and cycleway network to reduce the likelihood of casualties, and encourage other transport providers to improve safety on their networks.

3.10 Highways improvements, including improved junction designs are proposed which should make local junctions safer. Furthermore, footways and cycleways are being improved, such as the footway along Stonebridge Road.

- Outcome 4: Policy: Deliver schemes to reduce the environmental footprint of transport, and enhance the historic and natural environment.

3.11 The scheme helps to reduce the environmental footprint of transport by providing excellent access to public transport services and active travel routes. As such, resident and visitor reliance on private car travel would be reduced.

- Outcome 5: Policy: Provide and promote active travel choices for all members of the community to encourage good health and wellbeing, and implement measures to improve local air quality.

3.12 As outlined previously, the site is highly permeable to both walking and cycling with numerous walking and cycling routes proposed. The site will also benefit from a travel plan which will include a number of measures which would help to further promote travel using public and active travel modes therefore improving local air quality.

Gravesham Borough Council

Gravesham Local Plan (2014)

3.13 The policies within the Gravesham Local Plan are outlined within the Transport Assessment. The ways in which the proposed development will comply with the policies outlined within the Gravesham Local Plan (2014) are outlined below.

3.14 Strategic Objective 15: The proposals will minimise congestion by encouraging travel using sustainable modes of travel, such as public and active modes of transport. With regard to public transport. Frequent Fastrack services will travel through the site with other local services traveling along Stonebridge Road. Furthermore, the proposed site will provide a number of employment opportunities through the inclusion of offices at the site.

3.15 With regard to Policy CS11, the proposed site will comply as it will:

- Review and mitigate its impacts on the highway network through the preparation of a Transport Assessment, Delivery and Servicing Plan and Travel Plan;
- Provide parking in accordance with the relevant adopted parking standards;
- Provide a dedicated Fastrack route through the site;
- Provide a mobility hub to support the interchange between transport modes; and,
- Improve existing active travel routes and provide numerous routes through the site to ensure that the site is permeable to both pedestrians and cyclists.

Regulation 18 Documents

3.16 Gravesham Borough Council (GBC) undertook public consultations under Regulation 18 of the Town and Country Planning (Local Planning) (England) Regulations 2012 on its emerging Site Allocations and Development Management Policies local plan document. The Stage 2 public consultations took place between 23rd October and 31st December.

3.17 The two key documents are:

- Gravesham Local Plan Regulation 18 Stage 2 Consultation - Part 1 Local Plan core strategy partial review and site allocations (October 2020); and
- Gravesham Local Plan Regulation 18 Stage 2 Consultation – Part 2: Development Management Policies Document (October 2020)

Regulation 18 Stage 2 Consultation. Part 1: Local Plan core strategy partial review and site allocations (October 2020)

3.18 As stated within this document, after a review of the adopted local plan it has been confirmed that the majority of the information within the adopted local plan remains relevant, however in some cases policies need updating to reflect the current scenario.

3.19 The adopted Local Plan Core Strategy includes 18 strategic objectives a number of which would benefit from being updated, including strategic objectives SO5 and SO12.

3.20 With regard to transport, Gravesham Council is working alongside Highways England and KCC to ensure that growth needed in the borough can be delivered effectively. However, at present access to the proposed Lower Thames Crossing transport model or detailed models for the proposed development in the region. As such, the transport work supporting this consultation is undertaken at a high level. More detailed modelling would be undertaken once the KTM highways model is in operation.

3.21 The consultation document goes on to say that a reduction in greenhouse gasses could be achieved in the region in a number of ways including by:

- “increasing the use of public transport, cycling and walking;
- reducing the use of private modes of travel especially those reliant upon combustion of fuel such as petrol and diesel;
- supporting the switch to electric/hydrogen vehicles through making provision for charging points and car clubs;”

3.22 The proposed site adheres to this policy as it would help to encourage the use of public and active travel modes through the incorporation of the Fastrack corridor bus route and the presence of numerous pedestrian and cycle routes within the site. Furthermore, the proposed site would provide a suitable level of car parking provision that would help to reduce the use of private vehicles by site users. EV parking would also be provided at the site, with mechanisms in place to ensure that passive charging spaces can be converted to active charging spaces as required.

Regulation 18 Stage 2 Consultation. Part 2: Development Management Policies Document (October 2020)

3.23 The impact future development on the local transport network is reviewed within Core Strategy Policy CS11. This policy goes on to outline the steps that would need to be in place to accommodate additional vehicle trips and encourage the use of public transport in the area.

3.24 Proposed Policy INF 2 ‘Transport Design Principles’ states the following key points:

“Proposals should give priority to pedestrian and cycle movements and facilitate, as far as is possible, high-quality public transport, within safe secure and attractive environments, which minimise potential for conflict between motorised and non-motorised users. The needs of people with disabilities and reduced mobility should also be addressed.

Developments likely to generate high levels of vehicular traffic (and in particular commercial vehicular traffic in the form of heavy and light goods or passenger service vehicles) should be well located relative to the highway network to minimise impacts on local roads or other environmentally sensitive areas.

Provision should be made for:

- the safe and efficient delivery of goods;
- access by service and emergency vehicles; and
- the requirements of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations, unless otherwise justified as an exception.

Proposals for major development requiring either a Design and Access Statement or a formal Transport Assessment should set out how the above issues are addressed and the contribution made to securing the stated sustainability objectives.”

- 3.25 The proposals will deliver high quality, prioritised public transport directly into the heart of not only the site, but Northfleet also. With the site located in close proximity to the strategic highway network and rail stations, both short and longer distance trips can be easily accommodated by sustainable travel.
- 3.26 A mobility hub will provide access to ultra-low emission vehicles in an accessible and sustainable part of the site, linking public transport to the surrounding areas of Northfleet, Gravesend and Dartford.

Proposed Policy INF3 ‘Understanding and Mitigating Transport Impacts’ outlines the following:

“Development proposals will be required to meet the transport needs generated in a sustainable manner having regard to the principles set out in policy INF 2. They should consider avoiding before mitigating any unacceptable impacts on the safety and operation of the highway, public transport and public rights of way networks or the river as necessary.

Applications should be supported by a proportionate evidence base detailing baseline and future transport conditions and the likely impact of the proposed development, both alone and in combination with other known proposals, as appropriate.

Large or complex proposals or proposals with the potential to have unacceptable impacts in areas with existing transportation or associated air quality problems should be supported by a formal Transport Assessment, undertaken in accordance with national and local policy guidance and may also require the production of a Travel Plan, as part of any mitigation package.

Sufficient parking in new development will be provided in accordance with the Council’s adopted parking standards which will reflect the availability of alternative means of transport, accessibility to services and facilities, and the objective to secure a modal shift to more sustainable modes.”

- 3.27 The strategy adopted across the site is one of a sustainable neighbourhood, with the needs of pedestrian, cyclists and public transport users placed before private car users. The strategy has been to minimise parking and instead seek to enhance the mode share of sustainable travel to avoid significant or severe impacts on the highway network. The proposals provide a commitment to travel planning and monitoring also.
- 3.28 Proposed Policy INF 4 ‘New Accesses and Junctions’ comprises the following:

“All new or altered accesses and junctions should be appropriately sited and be of an appropriate scale, having regard to the levels of development, traffic and types of vehicle that are likely to need to use them.

All such accesses and new on-site highways associated with them should unless otherwise justified as an exception:

- Accord with relevant highway design, construction and safety standards applicable at the time, with junctions incorporating visibility splays consistent with their intended use and characteristics of the highway to be accessed;
- Be provided with sufficient manoeuvring space to allow vehicles to enter and leave the site in forward gear;
- Ensure vehicles can easily reach the necessary loading, servicing, and parking areas on-site without the need for multiple manoeuvres;
- Not result in an unacceptable adverse impact on highway safety; and
- Not result in a severe residual cumulative impact on the operation or the free flow of the highway network.

The impact of any new access and associated manoeuvring area or roadways on the character of the area, together with the impact of vehicles using those facilities on the amenity of neighbouring properties, will also be material considerations.”

3.29 Proposed Policy INF 5 ‘Electric Vehicle Charging Points’ states that:

“In order to reduce emissions and increase the use of plug-in vehicles, where viable the Council will require all new developments to provide charging infrastructure for electric vehicles.”

3.30 For developments of over 50 flats, 10% of parking bays should be marked out for use by electric vehicles only with charging points. For ‘other developments’ with over 50 bays the same standards apply.

Ebbsfleet Sustainable Travel Strategy (2020)

3.31 The Ebbsfleet Sustainable Travel Strategy (2020) was referenced within the Transport Assessment. The proposals at the site will build upon the vision set out through this strategy by delivering enhanced public transport services, prioritising walking and cycling and reducing provision for cars and for car parking.

3.32 Active travel routes will help to deliver healthy street and take priority within, and around the site and be provided and improved to ensure that they are accessible to all, including those with reduced mobility. As such, it is forecast that over 40% of all the local journeys at the site would be made sustainably by foot, by bicycle or on public transport.

Parking Standards

3.33 The 2021 Kent Design Guide parking standards for the relevant land uses at the site are presented within the previously submitted Transport Assessment. These standards identify that policy has moved away from enforcing maximum residential parking standards, and as such, these represent a reference point from which the proposals have been developed.

3.34 To further this approach, and in seeking to further encourage sustainable travel behaviour, the proposals have also given significant consideration to the more stringent Ebbsfleet Development

Corporation (EDC) parking standards. It should be noted, that at this outline planning stage, the specifics of parking are unknown, but a maximum provision across the site is provided.

- 3.35 The EDC parking standards for the relevant use classes are presented below. Specifically, with regard to the residential aspect of the development, the standards associated with ‘highly accessible’ areas have been outlined as this location most accurately represents the proposed development. The residential parking standards are presented within **Table 3.1** below.

Table 3.1: EDC Residential Parking Standards

Number of Rooms	Car Parking	Cycle Parking
1 - 2-bedroom flats	0 – 0.8 spaces per dwelling	1 space per Bedroom
2 Bed House	0 – 1.05 space per dwelling	
3 Bed House	0 – 1.2 space per dwelling	
4 or more bedrooms	0 – 1.3 spaces per dwelling	

- 3.36 EDC also have parking standards for non-residential use classes. These are presented at **Table 3.2** below.

Table 3.2: EDC Residential Parking Standards

Land Use	Use Class	GEA (m ²)/Units	Car Parking		Cycle Parking	
			Long Stay	Short Stay	Long Stay	Short Stay
Hotel	C1	20,000m ² (300 beds)	1 space per 2.4 employees	1 space per bedroom	1 space per 833sqm	1 space per 167sqm
Stadium	Sui Generis	15,000m ² (8000 seats)	1 space per 26sqm or 6 seats		1 space per 250 seats	
Non-Food Retail	E(a)	22,500m ²	1 space per 30sqm		1 space per 167sqm	
Food and Beverage	E(b)	9,500m ² (1000 seats)	1 space per 2.4 employees	1 space per 7sqm	1 space per 167sqm	1 space per 83sqm
Office	E(g)	18,000m ²	1 space per 30sqm		1 space per 167sqm	1 space per 833sqm
Non-residential Flexible Use	E(a, d, e, f)	5,000m ²	1 space per 2.4 staff	2.5 spaces per treatment room	Bespoke cycle parking provision to be calculated	
Local Community Use	F2	4,000m ²	1 space per 78sqm		1 space per 83sqm	

- 3.37 The EDC Blue Badge parking spaces are presented at **Table 3.3** below and overleaf.

Table 3.3: EDC Blue Badge Parking

Subcategory	Car Parking
Class E	
Car parks with up to 40 spaces	2 designated spaces + 1 space of sufficient size but not specifically designed.
Car parks with 40 to 200 spaces	4 designated spaces or 5% of the total capacity, whichever is greater
Car parks with greater than 200 spaces	6 designated spaces + 2% of the total capacity

C1 and Sui Generis	
Car parks with up to 40 spaces	1 designated space + 2 spaces of sufficient size but not specifically designed.
Car parks with 40 to 200 spaces	3 designated spaces or 6% of the total capacity, whichever is greater
Car parks with greater than 200 spaces	4 designated spaces + 4% of the total capacity

- 3.38 Blue Badge spaces would be conveniently located and clearly signed across the site. Furthermore, disabled parking bays would be at least 6.6m long and 2.4m wide to ensure that both drivers and passengers are able to enter and exit the vehicle safely. The EDC motorcycle parking standards are set out below in **Table 3.4**.

Table 3.4: EDC Motorcycle Parking Standards

Use Class	Motorcycle Parking
Non-Residential Developments	1 space + 1 space for every 20 car parking spaces provided

Summary

- 3.39 A review of the local, regional and national policy relevant to the site has outlined the importance of ensuring that the proposed development is progressive regarding the incorporation of sustainable transport infrastructure across the development.

4 Development Proposals

- 4.1 This section provides a description of the development proposals including active travel provision, access strategies for all modes and parking provision for different users. This section will not include information that was provided within the Transport Assessment that has not been updated.

Development Proposals

- 4.2 There have been no changes to the development proposals since the submission of the Transport Assessment which remains as described in Paragraph 1.6.

Site Layout

- 4.3 Given the outline nature of the application there is no definitive masterplan for the site and as such no updates to a site layout are included.

Neighbourhood Character Areas

- 4.4 There are no updates required for this section.

Road Layout

- 4.5 There has been a significant level of design development of the highway network in and surrounding the site, most notably of the realigned A226 corridor and corresponding junctions following the consultation responses.
- 4.6 As a result of this exercise, the following drawings have been prepared and are included at **Appendix F**.

- Plan of the proposals at podium level including:

- The route of proposed diversion of A226 Gallery Hill Road. Design of diverted route needs to be assessed as it forms part of site access arrangements.
- Any junction alterations
- The segregated Fastrack route

- Site access plans (1:500 scale) including:

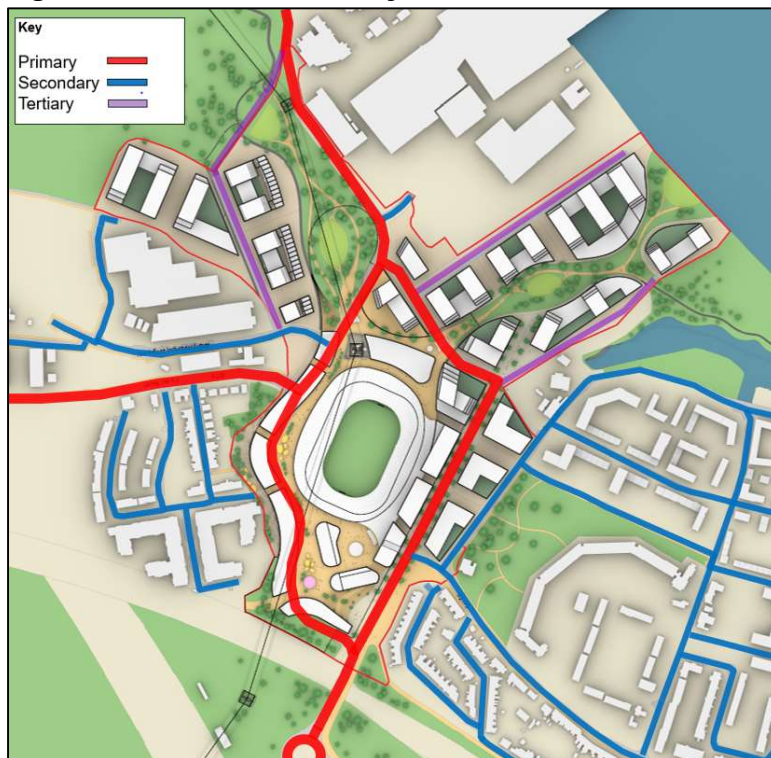
- Changes to the highway
- Appropriate vehicle visibility splays at junctions and along the A226
- Vehicle tracking.

- A226 Galley Hill Road for 16.5m HGVs

- Site access points should be tracked for 12.2m electric bus but also checked for an 18m articulated bus (basically the Fastrack route)
- Tracking drawing of the access points into the stadium parking area. Tracking needs to include a refuse vehicle to show this movement can be accommodated.
- Revised cross sections of Galley Hill Road and the Fastrack corridor.

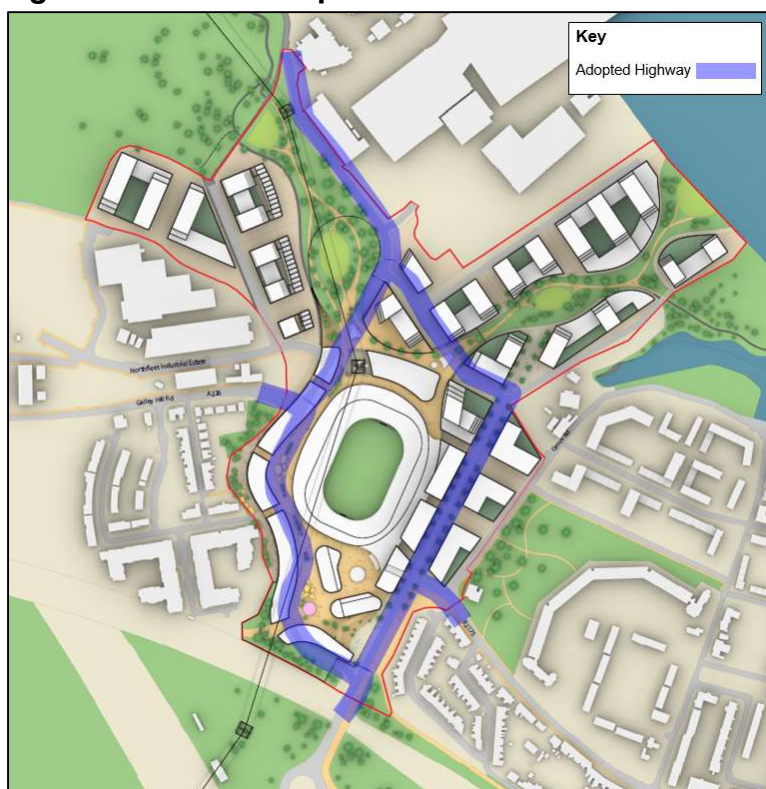
- 4.7 These plans include a podium level plan which shows the route of the proposed diversion of the A226 along with detailed plans for each of the internal and external junctions at the site. These drawing present the changes to the highway along with visibility splays and vehicle tracking.
- 4.8 Within the proposals the Seacon site would retain its existing main access point, however the northern access would be removed. These proposals were agreed with Seacon in discussions prior to the original planning submission in April 2022.
- 4.9 In response to a GBC comment regarding Lower Road, within the proposed site red line Lower Road would be realigned, however, to the immediate west of the site Lower Road is located outside of the proposed site red line and is not adopted, as such this section of Lower Road would be subject to a separate application to allow this small section to be revised in support of the proposals.
- 4.10 It is noted that the speed limits within the site will be low, with a 30mph speed limit along the A226 and a 20mph speed limit along the internal roads. Appropriate signage will be present at the site access points informing drivers of the speed limits in place.
- 4.11 Highway boundary data obtained from KCC for the area in close proximity to the site is presented at **Appendix G**.
- 4.12 Furthermore, as requested by KCC a road hierarchy plan has been produced for the site. This plan is presented at **Figure 4.1** overleaf.

Figure 4.1: Road Hierarchy Plan



4.13 A plan showing the highways that are anticipated to be built and offered for adoption within the site are presented at **Figure 4.2** below.

Figure 4.2: Road Adoption Plan



A226 Galley Hill Road

- 4.14 As outlined within the Transport Assessment the A226 Galley Hill Road will be realigned within the site boundary and will travel beneath a podium as it passes through the site. This arrangement is shown at **Appendix F** (226728_PD100). For the A226 corridor, a 5m footway/cycleway is proposed on the western side of the highway, with a 3m footway provided on the eastern side. Furthermore, as discussed with KCC a low-level verge of 0.5m demarcated in alternative materials is considered practical in this location as it will be under a podium, and any vegetation is likely to become an unattractive and maintenance hungry asset.
- 4.15 A cross-section of the realigned A226 Galley Hill Road is provided in **Appendix F** (226728_PD07_Rev A).
- 4.16 Swept path analysis of a 16.5m articulated lorry has been undertaken for this route which has clearly illustrated that vehicles of this size could safely navigate the proposed realigned A226 along with the junctions located along this road. The relevant drawing can be found at **Appendix F** (226728_PD100_AT01).

Seacon / Glencore existing Site Access

- 4.17 There are no updates required for this section.

Fastrack

Route

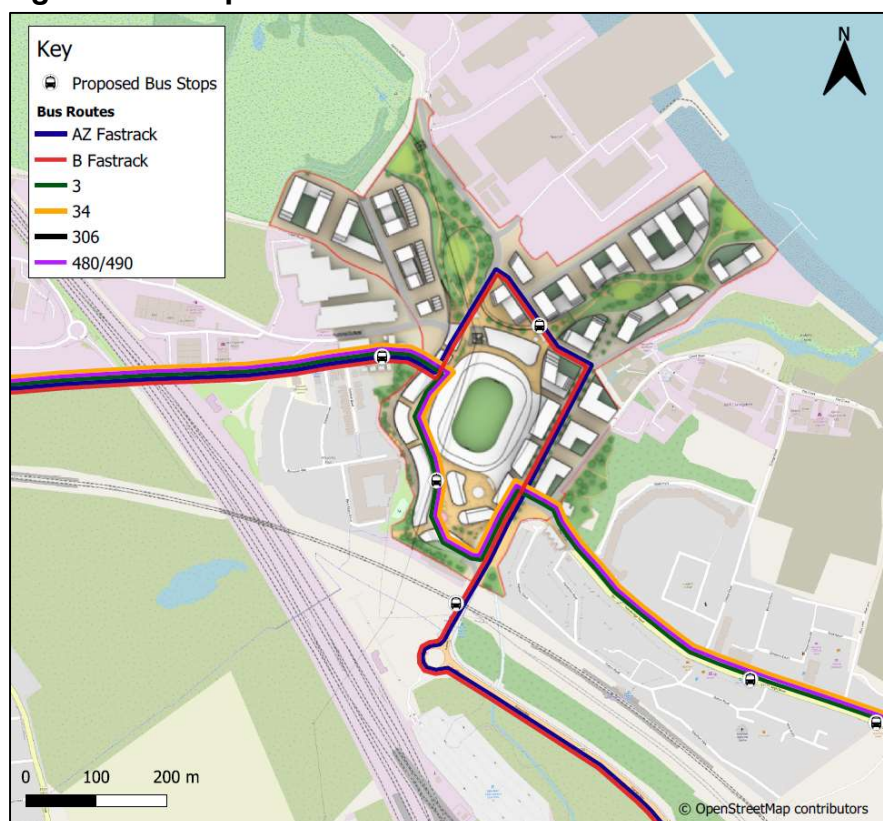
- 4.18 The Fastrack Route through the site will remain as proposed in the Transport Assessment. However, this internal route has been refined to ensure that it can accommodate the required vehicles whilst also ensuring that the pedestrian led nature of the development is maintained. This refinement process has been completed through liaison with the Fastrack operations team in April 2023.
- 4.19 The Fastrack Route through the site would comprise a two-way single carriageway road with a cycle path and pedestrian walkway along the side of the carriageway. The minimum width of the bus corridor would be 6.75m. An illustrative plan showing the proposed cross section of the Fastrack corridor is located at **Appendix F** (226728_PD07_Rev A).
- 4.20 As previously described, the Fastrack route travels to the site from Galley Hill Road to the west. The route then travels into the site at the Galley Hill Road/Lower Road junction and along the access road toward the Seacon site to the north. Buses will then turn right onto the dedicated Fastrack route to the north of the stadium. This route continues with a general east west alignment through the site before turning onto the Boulevard. The route then continues south to the A226 Thames Way. The reverse of this route would be true for westbound buses.
- 4.21 In proximity to the site, the proposed Fastrack route involves two signalised junctions and two priority junctions. All the junctions and turns along the route have been designed to accommodate Fastrack buses. Relevant swept path analysis drawings for a 12.2m electric bus and an 18m articulated bus illustrate how this route can accommodate vehicles of this size. The relevant drawing can be found at **Appendix F** (226728_PD100_AT02/AT03).

- 4.22 The Fastrack bus service would stop within the site at the Mobility Hub located at the centre of the site. This bus stop would benefit from a bus shelter, bench, timetables and raised kerbs to ensure access to the buses by those with mobility impairments can be achieved. The proposed Fastrack bus route is shown within **Figure 4.3** overleaf.
- 4.23 It is forecast that the proposed extension of the Fastrack route though the proposed site would lead to an increase in journey times of up to 1 minute. This is due to the extended distance required to be travelled and lower speed limit of 20mph.
- 4.24 In response to comments from both KCC and GBC, the realignment of the Fastrack corridor via Grove Road has been considered and there has been engagement with Ebbsfleet Development Corporation (EDC). However, the route would travel across land not located within the proposed sites red line, and as such the routing of the Fastrack route through to Grove Road could not solely be delivered through this scheme.

Commercial Bus Services

- 4.25 The Fastrack corridor would only be utilised by Fastrack bus services and as such all other commercial bus services would route along the realigned A226. Furthermore, the existing bus stop located adjacent to the Ebbsfleet Football Ground would be re-provided along the realigned A226. The remaining bus stops would remain in their existing location.
- 4.26 A plan showing the re-routed commercial bus routes and stadium bus stop is presented at **Figure 4.3** below.

Figure 4.3: Proposed Bus Routes



Monitoring

- 4.27 The dedicated Fastrack bus corridor will be controlled through the use of Automatic Number Plate Recognition (ANPR). Cameras will be installed at either end of the dedicated corridor which will monitor traffic travelling along the corridor. The ANPR cameras will be monitored by KCC. Signage will be in place to inform drivers of the restricted corridor.
- 4.28 It was outlined within the Transport Assessment that the demand for the Fastrack service through the site has been predicted using mode share information acquired from TRICS for the residential aspect of the development and Census 2011 data for the commercial aspect of the development. **Table 4.1** below presents the bus user mode share for both the residential and commercial aspects of the development. It should be noted that these bus trips are not dedicated Fastrack trips and would be distributed across both Fastrack services and other commercial services.

Table 4.1: Forecast Bus Mode Share

Use Class	Bus Mode Share	Number of Passengers		
		Weekday		Saturday
		AM Peak	PM Peak	13:00-14:00
Residential	9%	69	73	48
Non-Residential	6%	26	41	59

- 4.29 Accordingly, the hour in which the greatest number of bus trips are forecast to occur is the weekday PM peak (17:00-18:00) where a total of 73 two-way trips are forecast. When distributed across very frequent Fastrack services and regular commercial services the impact of these additional trips will be very low.

Vehicle Access

- 4.30 As outlined within the Transport Assessment, it is proposed that the site will benefit from six vehicular access points:
- A226 Thames Way
 - Lower Road/Galley Hill Road Junction
 - B2175 (Stonebridge Road)
 - Seacon Site Access
 - Northfleet Industrial Estate Access Road
 - Lower Road/Manor Way
- 4.31 In line with the comments provided by KCC in response to the original Transport Assessment additional detail has been provided for these access points. This additional detail is presented within the access drawings provided at **Appendix F**.
- 4.32 The proposed car parking and servicing area access located along the realigned A226 has been revised. It is now proposed that this access will comprise the minor arm of a three-arm roundabout,

of which the two major arms would be the A226 itself. This arrangement would create a safe and usable access point that would help to maintain the flows of vehicles along the A226 which could not be achieved using a signalised junction.

Pedestrian Access

- 4.33 The pedestrian access points were outlined within the Transport Assessment. **Figure 4.4** which follows identifies the same routes whilst also clearly highlighting which of these routes will accommodate realigned Public Rights of Way.

Public Rights of Way (PROW)

- 4.34 The England Coastal Path (ECP) is one such PROW that would need to be realigned through the proposed site. At present this route travels southwest from Grove Road towards the Grove Road/A226/B2175 Roundabout. The route then travels northwest along the A226 (Stonebridge Road) and then Lower Road. The route then follows Lower Road before joining the footpath to the north of the site, through Botany Marshes.
- 4.35 The proposed realignment of the ECP would travel through the site, along pedestrian only footpaths through green spaces and the shared cycle/footway adjacent to the low traffic Fastrack corridor. The realignment of this route through the proposed site would represent an improvement when compared to the existing route in terms of legibility and visual amenity. At present the route travels along the highly trafficked and polluted A226 whereas the proposed route would be quieter and further from the carriageway. Furthermore, the realignment would bring the ECP closer to the Thames which would be of benefit considering the nature of the route.
- 4.36 It should be noted that the alignment of the ECP outside of the proposed site would be unchanged, and the realignment within the site would be such that at the site boundary the ECP would join to the existing route. These proposals have been discussed with National Trail along with the process involved with realigning the ECP.
- 4.37 One comment from GBC on the application referred to the alignment of the indicative cycle link to the north of the site boundary. With regard to this, it should be noted that within the parameter plan extract at **Appendix H** the alignment of pedestrian and cycle routes outside of the site boundary is only indicative. As such, the alignment of the footpath to the north of the site outside the site cannot be considered to accurately represent the alignment of the existing ECP route.
- 4.38 Footpath 0328/NU1/1 is also located within the proposed site boundary. Within the site boundary this footpath follows Lower Road, adjacent to the ECP route. As such, this footpath would be realigned in line with the proposed ECP realignment above. To the north of the site the 0328/NU1/1 footpath continues along Lower Road and Manor Road before entering the Botany Marshes. As these sections of the footpath are outside of the site boundary, they will not be realigned within the proposals.
- 4.39 Footpath 0328/DS27/1(NU44/1) is located within the red line boundary for the site. At present this PROW comprises a narrow and poorly lit footpath. Within the proposals this footpath would experience a minor realignment to allow it to travel at the podium level to the west of the retail units. Within the proposals the footpath would be improved by being widened and having improved

lighting. Importantly, the realignment of the footpath within the site boundary would align with the unchanged aspects of the PROW that are external to the site, specifically Robinson Way to the north.

- 4.40 The 0238/NU2/2 footpath extends west of the site, becoming the 0263/DS17/2 footpath as it passes over railway tracks and west towards Stanhope Road. Within the site boundary the footpath would follow a similar alignment to the existing route, however it would exist within the public realm area between the retail units and stadium. The proposals would improve the nature of the PROW and ensure that the realignment would be minimal.
- 4.41 It was noted by GBC that thought should be given to improvements to the 0263/DS17/2 footpath, however as this route is located outside of the site boundary the land is not within our control. Accordingly, any improvements would need to be secured as part of a S106 agreement.
- 4.42 In any case, it is proposed that a PRow Scheme of Management will be secured as a condition. This would include details of the PRow routes affected, the diversion procedure during the construction process and details of the widths, surfaces and signage that will be along the route once development is completed.
- 4.43 **Figure 4.4** clearly highlights the sites proposed pedestrian access points which will be located in a number of locations around the proposed site ensuring that pedestrian access can be achieved from all directions around the site. Furthermore, it is now proposed that raised tables will be provided at the Seacon Access Road/Fastrack Corridor junction and the Boulevard/Grove Road junction. These raised table locations are presented within **Figure 4.4** overleaf.

Figure 4.4: Pedestrian Access Plan



4.44 As outlined by **Figure 4.4** the open spaces, including parks within the proposed site are well connected by pedestrian routes, including the proposed route of the realigned England Coastal Path (ECP).

4.45 Pedestrians from all walks of life would be able to travel across the proposed site, with pedestrian routes designed to accommodate those with reduced mobility. Accordingly pedestrian routes within the site would be wide and well surfaced, with lighting present throughout. It is noted that due to the inclusion of a podium level there are elevation changes proposed within the site. Between the elevated podium level and the remainder of the site the gradient of pedestrian routes would be low and where steps are incorporated into a particular route, and alternative step free route will be provided.

Cycle Access

4.46 As outlined within the Transport Assessment the proposed site will be highly permeable to cyclists to help encourage travel by bicycle. The cycle routes proposed at the site aim to facilitate cycle travel in all directions across the proposed site, however due to the layout of the site, and the location of the

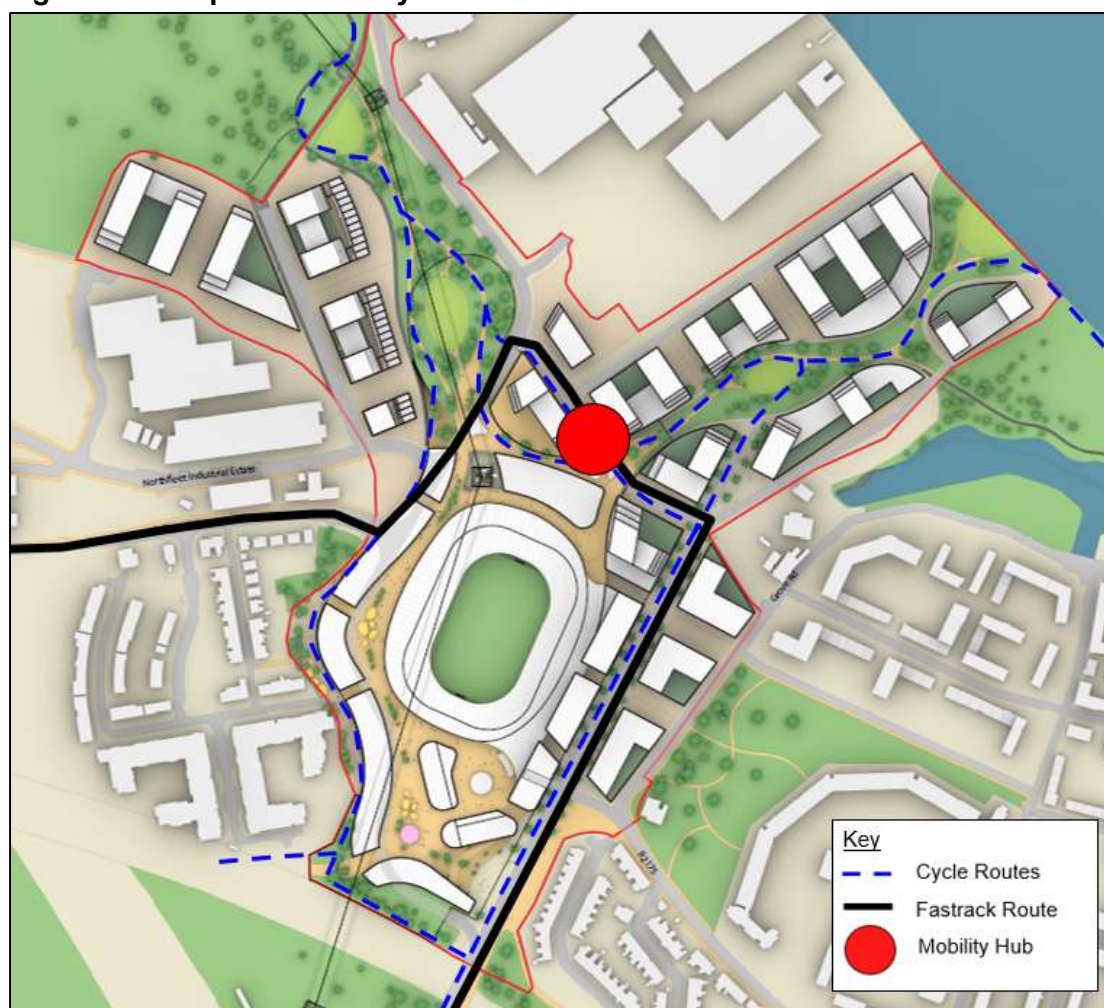
stadium, additional east-west links cannot be provided. As such, the cycle routes outlined within the Transport Assessment are unchanged though they are clarified by **Figure 4.4** above.

- 4.47 As requested by KCC, it is proposed that the width of the footway/cycleway along the B2175 Stonebridge Road and A226 Galley Hill Road will be increased to 5m. This is greater than the 3m previously proposed. The increased width will ensure that a high frequency of both pedestrian and cycle trips can be accommodated by the footway/cycleway without the risk of incidents increasing.
- 4.48 A cross sectional plan of the A226 Galley Hill Road is presented at **Appendix F** (226728_PD07_Rev A).

Mobility Hub

- 4.49 The mobility hub at the proposed site will be located to the north of the stadium, adjacent to the Fastrack corridor. This location is suitable due to its location at the centre of the site adjacent to cycle routes, pedestrian routes and the Fastrack corridor. The location is presented at **Figure 4.5** below.

Figure 4.5: Proposed Mobility Hub Location



Parking

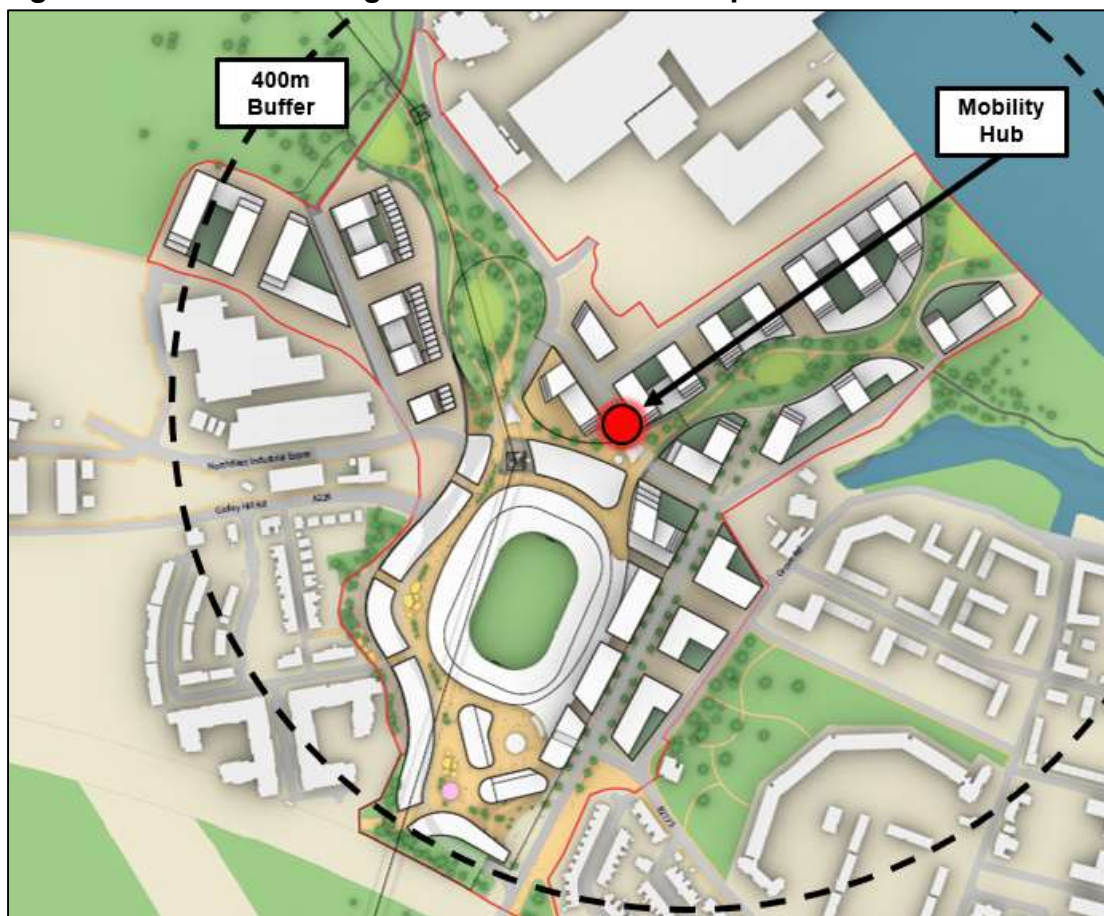
Car Parking

- 4.50 Car parking will be provided at the site in consideration of the most relevant local parking standards from KCC and EDC. None of the existing parking at the site will be retained and as such all parking will be new and provided specifically for the proposed uses.

Residential Parking

- 4.51 The number of residential parking spaces proposed at the site is unchanged from the Transport Assessment, accordingly a total maximum of 1,750 residential spaces are proposed equating to a parking ratio of 0.5 car parking spaces per dwelling.
- 4.52 This level of parking is considered appropriate for the proposed site as supported by the car ownership data presented within **Table 4.2** of the Transport Assessment.
- 4.53 Car parking spaces would be provided to residents on a first come first serve basis. As such, parking permits would be issued on a block-by-block basis. These spaces would be suitably split across the neighbourhood areas at the site based upon unit type.
- 4.54 Furthermore, it is proposed that several car club vehicles will be provided at the proposed mobility hub and across the neighbourhoods of the site. Based upon the current guidance set out by EDC, a minimum of 3 car club vehicles would be required and so this will be further assessed and confirmed through the subsequent Reserved Matters applications across the site to ensure provision can be secured as each neighbourhood is completed.
- 4.55 The presence of these vehicles will mean that residents will still be able to access a car for occasional journeys without having to own one themselves. This responds to the demographical changes in demand that occur across a large-scale development. As such, this will further reduce the need for residents to own a private vehicle, thus reducing the need to provide parking in line with the 2021 Kent Design Guide standards.
- 4.56 The proposed location of the mobility hub at the site is such that it ensures that residents living across the site will be within walking distance of the hub, and the car club spaces located there. **Figure 4.6** overleaf shows the 400m distance from the mobility hub, illustrating that all residents at the site would be within a 400m (5-minute walk) of the on-site car club spaces.

Figure 4.6: 400m Walking Distance to Car Club Spaces



Non-Residential Parking

- 4.57 With regard to the non-residential parking, the Kent Design Guide Parking Standards SPD and EDC cycle parking standards have been consulted. This was the approach used for the submitted Transport Assessment. These standards are maximum parking standards and as outlined within the Kent Design Guide Parking Standards SPD lower parking provisions should be considered to encourage travel by other modes.
- 4.58 Furthermore, for the flexible non-residential uses the provisions are based on staff or people which is not data we have as part of this outline proposal. These would be confirmed through the reserved Matters applications.
- 4.59 As requested by KCC, the maximum number of car parking spaces that could be allocated to each of the non-residential uses is outlined below within **Table 4.3** overleaf.

Table 4.3: Non-Residential Parking Provisions

Use Class	Subcategory	Car Parking Spaces						PTW	
		Total		EV		BB			
		Long Stay	Short Stay	Long Stay	Short Stay	Long Stay	Short Stay	Long Stay	Short Stay
C1	Hotel	75	300	8	30	97	20		
Sui Generis	Stadium	533		53			28		
E(a)	Non-food retail	900		90			46		
E(b)	Food and Beverage	271	1583	27	158		94		
E(g)	Office	720		72			37		
E(c, d, e, f)	Non-resi flexible use	TBC	TBC	TBC	TBC				
F2	Local Community Use	182		18			10		
Total		4565		456		97		235	

- 4.60 The total parking provision for non-residential components of the proposed development is proposed to be a maximum of 950 parking spaces. All of these spaces will be located within the parking area located beneath the marketplace, adjacent to the stadium and within the non-residential building areas set by the parameter plans.
- 4.61 Although the spaces within the marketplace and stadium car park will be allocated to non-residential uses there would be no restriction to visitors of the residential units parking within this car park. However, a pricing strategy will be in place that will work to discourage long stay parking at the site, including overnight parking.
- 4.62 As outlined within the Transport Assessment the EV parking will be provided at the site in line with Kent Design Guide SPD parking standards. Accordingly, the residential aspect of the development will have a minimum of 175 spaces with active charging capability. All 1,750 residential spaces will have passive charging capabilities. Regarding the non-residential aspect of the development there will be up to 95 active charging spaces, equating to a minimum of 10% of the total number of spaces.
- 4.63 With regard to the passive EV spaces, these spaces would be able to be retrofitted as necessary to allow them to operate as active EV spaces. Residents would be to agree to retrofitting spaces within the house buying process.
- 4.64 GBC suggested that consideration should be given to the inclusion of rapid chargers in the commercial car parks. As such, the provision of such charging facilities would be considered within Reserved Matters applications for the site based upon the most recent guidance.
- 4.65 It should be noted that at present the Ebbsfleet United Football Club direct fans to the Ebbsfleet International car park C on match days. The proposed site will not promote parking in this location, and instead the on-site non-residential car park will be the location for supporters on match days.

Cycle Parking

- 4.66 Regarding non-residential parking, the Kent Design Guide Parking Standards SPD and EDC cycle parking standards have been consulted. This was the approach used for the submitted Transport Assessment. The site will as a minimum be in line with these standards. These parking provisions are presented at **Table 4.5** of the previously submitted Transport Assessment.

Refuse and Servicing

- 4.67 The proposed refuse strategy is unchanged for the site since the submission of the Transport Assessment. However, the access into the proposed site from the A226 is has been revised since the submission of the Transport Assessment.
- 4.68 Access to the proposed servicing area to the west of the A226 would now be undertaken via a roundabout that is proposed to be located along the A226 beneath the podium. This access would represent the strategic access for servicing vehicles.
- 4.69 However, as requested by KCC, a drawing showing a refuse vehicle accessing and egressing the servicing area beneath the podium has been produced and is presented at **Appendix F** (226728_PD100_AT04). This swept path analysis clearly shows that an 11.2m refuse truck could access and egress the proposed access points in forward gear.
- 4.70 Servicing and refuse collection associated with the residential units would be done via the internal road network, with servicing undertaken from a suitable location in close proximity to each block. Within reserved matters applications the servicing routes and turning areas for each block would be presented in more detail. In any case, the design of turning areas would be such that their presence and the movement of servicing vehicles within then would have a minimal impact upon the public realm and residents. For example, shared surface turning areas could be explored to create a more pedestrian led environment that would still be able to accommodate servicing and refuse vehicles when required.

Operational Waste Management

- 4.71 There are no updates required for this section with the submitted Operational Waste Management Strategy remaining valid.

Emergency Vehicle Access

- 4.72 Emergency vehicle access will be facilitated via the realigned highway network as for all vehicles. As the detailed internal layout is developed, consultation will begin with relevant operators and design guidance to ensure access to buildings is optimal.

5 Trip Generation

- 5.1 This section of the TA sets out the methodology for the trip generation for the proposed development. In order to calculate the total trip generation across the site the trip generation for each of individual land uses have been calculated.
- 5.2 The trip generation for this site has been determined for each of the land uses proposed at the development.

Existing Trip Generation

- 5.3 The site currently consists of the Ebbsfleet United Football Ground, warehousing and industrial units and some residential units. It is estimated that there are in the region of 60 businesses across a floor area of 105,000 sqm. Therefore, there is expected to be a large number of a number of existing trips associated with the site that will be removed upon the redevelopment of the site.
- 5.4 Montagu Evans LLP have undertaken an assessment of existing employment within the red line boundary. Their study has estimated that there are approximately 520 existing and active jobs within the red line boundary across a range of businesses on site, such as car washes and industrial units to a petrol station and a gym.
- 5.5 It is considered that undertaking a trip generation exercise for the existing uses would be unreliable unless numerous surveys were conducted across all operating units. As this is unfeasible, not net reduction in trips across the network has been assumed, with the exception of the proposed gym / leisure use proposed. This is due to the current provision on site, and the comparable area / usage that would occur. This land use has therefore been assumed to result in no net change and is excluded from the trip generation exercise altogether.
- 5.6 The trip generation forecasts set out within this section have been derived through extensive consultee liaison.

Proposed Vehicular Trip Rates

- 5.7 Following the submission of the Transport Assessment, and through initial consultee and design team feedback, it became apparent that a refined trip generation exercise was necessary to better inform the KTM modelling which was required and to ensure that the proposals did not over-deliver additional highway infrastructure.
- 5.8 The trip generation exercise within the Transport Assessment is therefore superseded by the exercise presented below.

Weekday

- 5.9 To determine the proposed trip generation at the site, the TRICS database has been consulted. It is important to note at this point that the TRICS Consortium Limited TRICS Good Practice Guide 2021 states that in relation to mixed development scenarios:

- 5.10 'When compiling trip rates for individual components comprising a mixed development scenario, users should be aware that any cross-visitation activity between individual components would not be accounted for within the trip rates generated using TRICS®'.
- 5.11 To therefore ensure a robust and appropriate assessment is completed, consideration of internal and linked trips has been given to each land use presented in this section.

Residential (C3)

- 5.12 A total of 3,500 residential units are proposed on site with an anticipated composition comprising 90% private housing and 10% intermediate affordable housing. Based upon the 'Socio-Economics and Health chapter of the Environmental Statement' (Chapter 6) submitted in support of the application, the anticipated breakdown of residents is presented in **Table 5.1** below.

Table 5.1: Residential Population

Age Group	Census-based Population Estimate
Pre-School Aged Children	283
Primary Aged Children	135
Secondary Aged Children	107
Tertiary Aged Children	83
Young Adult	407
Core Working	3,241
65+ Population	1,296
Total	5,552

- 5.13 To forecast the anticipated trip generation associated with this element of the site, residential trip rates per dwelling have been extracted from the TRICS database using the criteria set out below:

- Residential
 - Land Use: Residential
 - Category: Private Flats
 - Regions: England excluding Greater London
 - Floor Area / Dwelling: 6-215 dwellings
 - Date Range: 01/01/14-11/05/22
 - Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre
 - Parking Ratio: Sites with a parking ratio of greater than 1.5 have been excluded

5.14 The results of this search and the forecast resulting trip generation is presented in **Table 5.2** below.

Table 5.2: Residential Trip Rates and Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Residential (per unit)	AM	0.056	0.175	196	613
	PM	0.161	0.085	564	298
	Daily	0.969	1.056	4367	4759

5.15 The trip rates extracted result in a forecast of 809 and 861 two-way trips during the AM and PM peaks, respectively, with a total of 9,126 two-way trips across a single day.

5.16 The maximum parking provision across the residential units is capped at 0.5 spaces per unit resulting in a maximum total of 1,750 parking spaces.

Hotel (C1)

5.17 The development proposal includes for a 300-bedroom hotel within the site equating to 20,000m² of gross external floor area. To forecast the anticipated trip generation associated with this element of the site, hotel trip rates per room have been extracted from the TRICS database using the criteria set out below:

— Hotel

- Land Use: Hotel, Food & Drink
- Category: Hotels
- Regions: England excluding Greater London
- Bedrooms: 50-400 beds
- Date Range: 01/01/14-10/08/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.18 The results of this search and the forecast resulting trip generation is presented in **Table 5.3**, below.

Table 5.3: Hotel Trip Rates and Generation

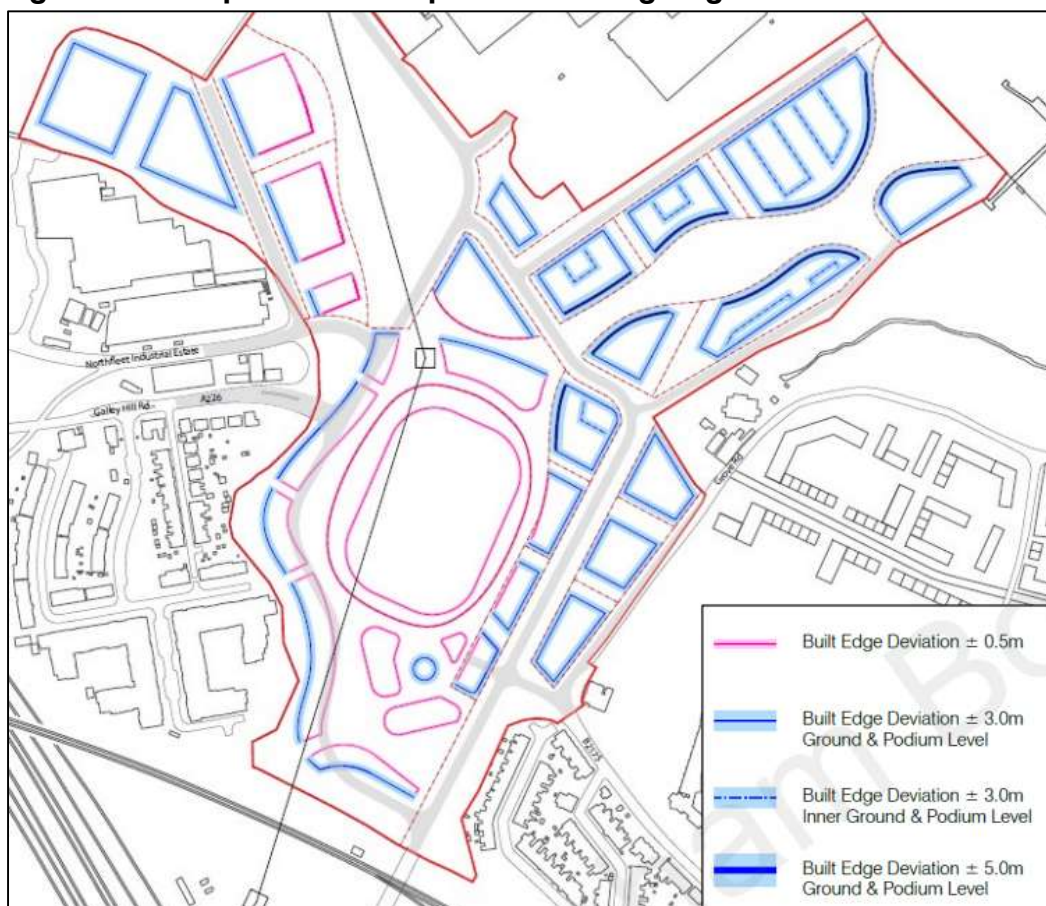
Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Hotel (per bedroom)	AM	0.1	0.197	30	59
	PM	0.203	0.11	61	33
	Daily	1.796	1.76	537	526

- 5.19 The trip rates extracted result in a forecast of 89 and 94 two-way trips during the AM and PM peaks, respectively, with a total of 1,063 two-way trips across a single day.

Retail (E(a))

- 5.20 A total of 22,500m² of retail floor space is proposed across the site as part of the retail village envisaged on site. This is set out by the masterplan and safeguarded by the Parameter Plans submitted in support of the application.
- 5.21 The retail units proposed as part of the retail village will be no larger than 560m², with the significant majority smaller than 375m². The location and form of these retail units is prescribed by the 'Proposed Development Building Edge Deviation Plan (Ground Floor and Podium)' which is included as Figure 4.7 in Chapter 4 of the Environmental Statement.
- 5.22 There is flexibility within the site layout, whereby routes, spaces and building boundaries are not completely fixed but are subject to limits of deviation. The limits of deviation with regards to building edge vary from +/- 0.5m to +/- 5m of deviation, as specified on the Parameter Plans. An extract of this plan is included below in **Figure 5.1**.

Figure 5.1: Proposed Development Building Edge Deviation Plan



- 5.23 As a result of this limitation in the massing and area of the retail units, trip rates have been extracted from the TRICS database for comparable retail uses using the criteria set out overleaf. The proposed retail component of the site is expected to be a mix of open-air retail units similar to Bicester and

Ashford Shopping villages. Therefore, to capture suitable mix of units the Factory Outlet Centres category has been used as typical retail would not provide for the variety of potential units without splitting the areas into specific, more defined land uses.

- 5.24 These rates have been extracted per parking space due to the fact that the proposed development has a finite supply of vehicular parking on site, and there is very limited scope for travelling visitors to park in the proximity of the retail village off site. Therefore, parking provision is a constraining factor with regards to the number of trips that can visit the retail component of the site. By using a trip rate per space, the turnover of parking will provide an accurate representation of the trip generation.

— Retail

- Land Use: Retail
- Category: Factory Outlet Centres
- Regions: England excluding Greater London
- Floor Area / Dwelling: 3,857-23,350
- Date Range: 01/01/14-07/12/14
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

- 5.25 The above selection criteria only yielded two results from the TRICS database, which were both surveyed on a Sunday. The TRICS database has a limited selection of comparable sites suitable for use within the last 10 years.

- 5.26 However, by extending the search back to the year 2000, two sites are available from 2001 that were surveyed on a Saturday. Furthermore, the sites reside in Kent, the Ashford outlet, and Essex, the Freeport Shopping Centre in Braintree and are also located in close proximity to a train station.

- 5.27 Applying the proposed quantum of retail development to the trip rates provided a trip generation and parking accumulation for a Saturday, as shown in **Table 5.4** overleaf.

Table 5.4: Saturday Retail Trip Generation and Parking Accumulation

Time Period	Trip Rates			Trip Generation			Accumulation
	In	Out	Total	In	Out	Total	
08:00-09:00	0.097	0.026	0.123	68	18	86	50
09:00-10:00	0.258	0.047	0.305	181	33	214	197
10:00-11:00	0.382	0.112	0.494	267	78	346	386
11:00-12:00	0.420	0.229	0.649	294	160	454	520
12:00-13:00	0.320	0.318	0.638	224	223	447	522
13:00-14:00	0.463	0.385	0.848	324	270	594	576
14:00-15:00	0.506	0.465	0.971	354	326	680	605
15:00-16:00	0.395	0.472	0.867	277	330	607	551
16:00-17:00	0.274	0.529	0.803	192	370	562	372
17:00-18:00	0.109	0.427	0.536	76	299	375	150
	0.022	0.246	0.268	15	172	188	0

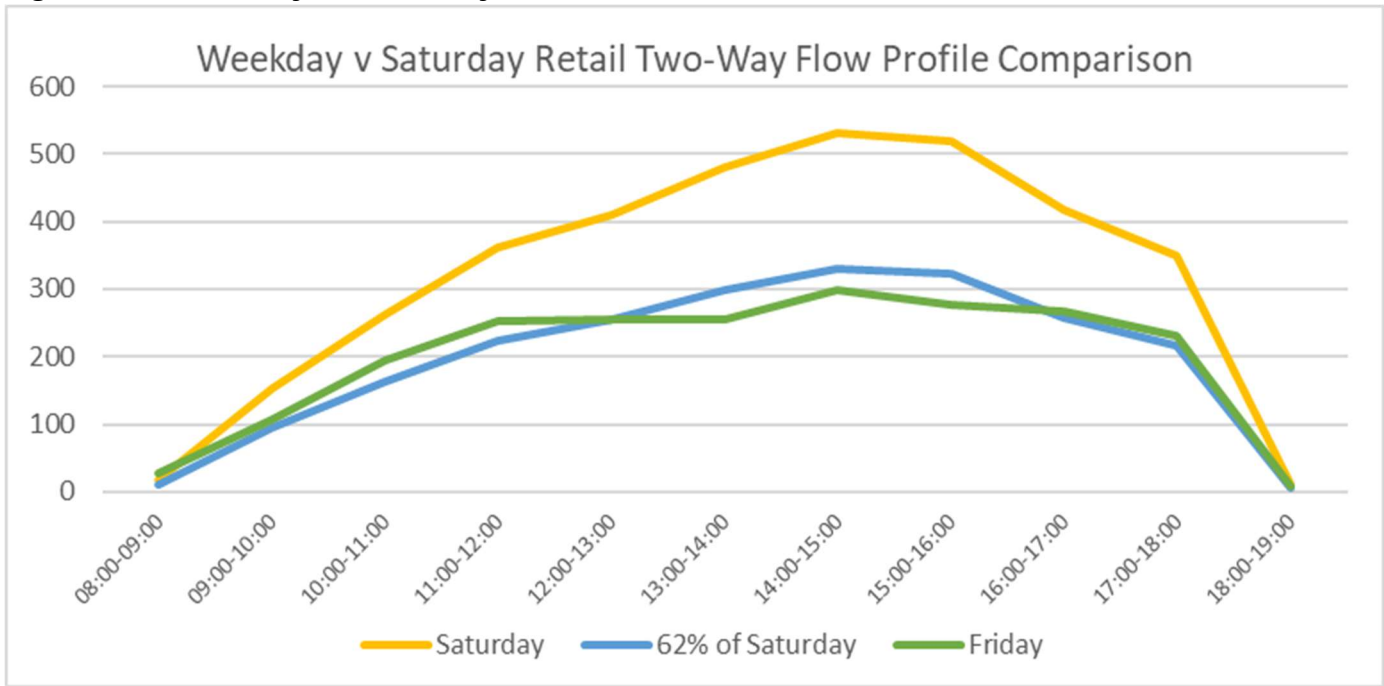
- 5.28 Table 5 shows that the Saturday peak hour for two-way trips is between 14:00 and 15:00, with a flow of 680 vehicles. This is also when the peak parking accumulation of 605 vehicles (86% full) is expected to occur. This demonstrates that the car park is suitably sized to accommodate a typical level of demand for a Saturday, with sufficient capacity for seasonal variations.
- 5.29 To derive a weekday trip generation, TRICS has been consulted to find a site that has survey data on a weekday and a Saturday. Then the relationship between the two can be used to calculate a typical weekday trip generation.
- 5.30 There is one site within the TRICS database within the Retail - Factory Outlet Centres category that has survey data on a weekday and a Saturday. To find this site the region criteria had to be extended to cover all of the UK and it resulted in one site located in Wales.
- 5.31 **Table 5.5** (overleaf) shows a comparison between the weekday and Saturday trip rates and trip generation.

Table 5.5: Weekday and Saturday Retail Trip Rate and Trip Generation Comparison

Time Period	Weekday						Saturday					
	Trip Rates			Trip Generation			Trip Rates			Trip Generation		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
08:00-09:00	0.025	0.014	0.039	18	10	27	0.017	0.008	0.025	12	6	18
09:00-10:00	0.115	0.039	0.154	81	27	108	0.168	0.051	0.219	118	36	153
10:00-11:00	0.188	0.091	0.279	132	64	195	0.254	0.121	0.375	178	85	263
10:00-11:00	0.208	0.154	0.362	146	108	253	0.314	0.201	0.515	220	141	361
11:00-12:00	0.189	0.176	0.365	132	123	256	0.322	0.264	0.586	225	185	410
12:00-13:00	0.185	0.178	0.363	130	125	254	0.378	0.309	0.687	265	216	481
13:00-14:00	0.214	0.212	0.426	150	148	298	0.406	0.352	0.758	284	246	531
14:00-15:00	0.193	0.203	0.396	135	142	277	0.344	0.397	0.741	241	278	519
15:00-16:00	0.159	0.224	0.383	111	157	268	0.193	0.402	0.595	135	281	417
16:00-17:00	0.077	0.253	0.330	54	177	231	0.111	0.389	0.500	78	272	350
17:00-18:00	0.003	0.009	0.012	2	6	8	0.001	0.013	0.014	1	9	10
18:00-19:00	0.025	0.014	0.039	18	10	27	0.017	0.008	0.025	12	6	18
Daily	1.556	1.553	3.109	1,089	1,087	2,176	2.508	2.507	5.015	1,756	1,755	3,511

5.32 The data shown in Table 6 shows that weekday retail trips are typically 62% lower than that of a Saturday. This can be demonstrated using the two-way daily flows as an example: $2,176 \div 3,511 = 0.62$. To demonstrate this graphically, the weekday and Saturday profiles have been plotted along with the Saturday profile at 62%. This chart is shown overleaf in **Figure 5.2** demonstrates that even on different days of the week, the distribution of trips throughout the day is largely similar and therefore, the Saturday data multiplied by a factor of 0.62 can be used as a proxy for weekday data.

Figure 5.2: Weekday vs Saturday Retail Traffic Flow



5.33 To validate this approach, the 2015-2019 National Travel Survey (NTS) was consulted to further understand the relationship between retail trips made during the week and on a Saturday. Weekday retail trips are typically 62% of the level of retail trips made on a Saturday as demonstrated by the NTS table extract shown below in **Figure 5.3**.

Figure 5.3: NTS Trips Review

Select years ¹ :	2015/19						
Trips per person per year							
Purpose	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Shopping	24	23	23	24	28	39	23

5.34 The average number of weekday trips is 24, which when divided by 39 (Saturday trips), equates to 0.62. Therefore, the weekend trip generation has been reduced to 62% to provide a weekday retail trip generation, as shown in **Table 5.6** overleaf.

Table 5.6: Weekday Retail Trip Generation and Parking Accumulation

Time Period	Trip Generation			
	In	Out	Total	Accumulation
08:00-09:00	42	11	53	31
09:00-10:00	112	20	132	122
10:00-11:00	166	49	214	240
11:00-12:00	182	99	282	322
12:00-13:00	139	138	277	323
13:00-14:00	201	167	368	357
14:00-15:00	220	202	421	375
15:00-16:00	171	205	376	342
16:00-17:00	119	230	349	231
17:00-18:00	47	185	233	93
18:00-19:00	10	107	116	0

5.35 The trip rates extracted and factored for a weekday assessment, result in a forecast of 53 and 233 two-way trips during the AM and PM peaks, respectively, with a total of 2,822 two-way trips across a single day.

Food and Beverage (E(b))

5.36 A total of 9,500m² of food and beverage uses are proposed across the site.

5.37 To forecast the anticipated trip generation associated with this element of the site, Trip rates per 100m² have been extracted from the TRICS database using the criteria set out below:

— Food and Beverage

- Land Use: Hotel, Food & Drink
- Category: Pub/Restaurant
- Regions: England excluding Greater London
- Floor Area / Dwelling: 500sqm-12,000sqm
- Date Range: 01/01/14-10/08/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.38 The results of this search and the forecast resulting trip generation is presented in **Table 5.7** overleaf.

Table 5.7: Food and Beverage Trip Rates and Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
F&B (per 100 sqm)	AM	0	0	0	0
	PM	2.461	1.619	168	110
	Daily	19.878	19.535	1352	1324

- 5.39 The trip rates extracted result in a forecast of 0 and 278 two-way trips during the AM and PM peaks, respectively, with a total of 2,677 two-way trips across a single day.

Office (E(g))

- 5.40 A total of 18,500m² of office land uses are proposed across the development site. To forecast the anticipated trip generation associated with this element of the site, Trip rates per 100m² have been extracted from the TRICS database using the criteria set out below:

- Office
- Land Use: Employment
- Category: Office
- Regions: England excluding Greater London, Wales
- Floor Area / Dwelling: 178sqm-70,291sqm
- Date Range: 01/01/14-18/05/22
- Selected Locations: Edge of Town, Suburban Area,

- 5.41 The results of this search and the forecast resulting trip generation is presented in **Table 5.8** below

Table 5.8: Office Trip Rates and Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Office (per 100 sqm)	AM	1.535	0.117	251	19
	PM	0.112	1.183	18	194
	Daily	4.759	4.709	780	771

- 5.42 The trip rates extracted result in a forecast of 270 and 212 two-way trips during the AM and PM peaks, respectively, with a total of 1,551 two-way trips across a single day.

Non-residential Flexible Uses (E)

- 5.43 A total of 5,000m² of non-residential, flexible land uses are proposed on site comprising a mix of class E uses. These are broken down as follows:

- 5,000m²

- 1,100m² Local services (E(c))
- 1,200m² Indoor Sport (E(d))
- 1,500m² Medical services (E(f))
- 1,200m² Nursery (E(g))

5.44 For the proposed indoor sport use it is noted that there is currently a fitness centre located within the red line boundary of the site (Snap Fitness 24-7) which is approximately the same size as that proposed (c. 1,000m²) As a result of this, it is considered this represent a like-for-like replacement and that there would be no net uplift in trips associated with this use.

5.45 To establish the forecast trip generation associated with these remaining uses, Trip rates per 100m² have been extracted from the TRICS database using the criteria set out below:

- Local Services (E(c))

- Land Use: Retail
- Category: Shopping Centre – Local Shops
- Regions: England excluding Greater London
- Floor Area / Dwelling: 210sqm-8310sqm
- Date Range: 01/01/14-10/08/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

- Medical Services (E(f))

- Land Use: Health
- Category: GP Surgeries
- Regions: England excluding Greater London
- Floor Area / Dwelling: 210sqm-8310sqm
- Date Range: 01/01/14-10/08/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

- Nursery (E(g))

- Land Use: Education

- Category: Nursery
- Regions: England excluding Greater London
- Floor Area / Dwelling: 210sqm-8310sqm
- Date Range: 01/01/14-10/08/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.46 The results of this search and the forecast resulting trip generation, in consideration of the trip generating factors set out above, are presented in **Table 5.9** below.

Table 5.9: Non-Residential Flexible Uses

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Local Services (per 100 sqm)	AM	4.465	4.01	45	40
	PM	6.031	6.321	60	63
	Daily	74.361	74.335	744	744
GP (per 100 sqm)	AM	2.587	1.531	35	21
	PM	1.226	1.907	17	26
	Daily	23.539	22.982	321	314
Nursery (per 100 sqm)	AM	1.828	1.211	20	13
	PM	1.211	1.807	13	20
	Daily	8.417	8.226	92	90

- 5.47 The local services trip rates extracted result in a forecast of 85 and 123 two-way trips during the AM and PM peaks, respectively, with a total of 1,488 two-way trips across a single day.
- 5.48 The GP trip rates extracted result in a forecast of 56 and 43 two-way trips during the AM and PM peaks, respectively, with a total of 635 two-way trips across a single day.
- 5.49 The nursery trip rates extracted result in a forecast of 33 two-way trips during the AM and PM peaks, with a total of 182 two-way trips across a single day.

Community Uses (F)

- 5.50 A total of 4,000m² of community uses are proposed across the site. To forecast the anticipated trip generation associated with this element of the site, Trip rates per 100m² have been extracted from the TRICS database using the criteria set out below:

- Community Use
- Land Use: Leisure
- Category: Community Centre

- Regions: England excluding Greater London
- Floor Area / Dwelling: 100sqm-2,329sqm
- Date Range: 01/01/14 – 28/04/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.51 The results of this search and the forecast resulting trip generation is presented in **Table 5.10** below.

Table 5.10: Community Use Trip Rates and Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Community Use (per 100 sqm)	AM	0.437	0.340	16	12
	PM	0.057	0.057	2	2
	Daily	7.040	6.736	256	245

5.52 The community use trip rates extracted result in a forecast of 28 and 4 two-way trips during the AM and PM peaks, respectively, with a total of 501 two-way trips across a single day.

5.53 Full TRICS outputs for all land uses are shown in **Appendix I**.

Weekday Vehicular Trip Rates and Trip Generation Summary

5.54 **Table 5.11** below provides a summary of the vehicular trip rates extracted from the TRICS database for each land use.

Table 5.11: Vehicular Trip Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Residential (per unit)	AM	0.056	0.175	196	613
	PM	0.161	0.085	564	298
Retail (per parking space)	AM	0.025	0.014	18	10
	PM	0.003	0.009	2	6
Food and Beverage (per 100sqm)	AM	0	0	0	0
	PM	2.461	1.619	168	110
Office (per 100 sqm)	AM	1.535	0.117	251	19
	PM	0.112	1.183	18	194

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Hotel (per room)	AM	0.1	0.197	30	59
	PM	0.203	0.11	61	33
Local Services (per 100 sqm)	AM	4.465	4.01	45	40
	PM	6.031	6.321	60	63
GP (per 100 sqm)	AM	2.587	1.531	35	21
	PM	1.226	1.907	17	26
Nursery (per 100 sqm)	AM	1.828	1.211	20	13
	PM	1.211	1.807	13	20
Community Use (per 100 sqm)	AM	0.437	0.340	16	12
	PM	0.057	0.057	2	2

Internalisation

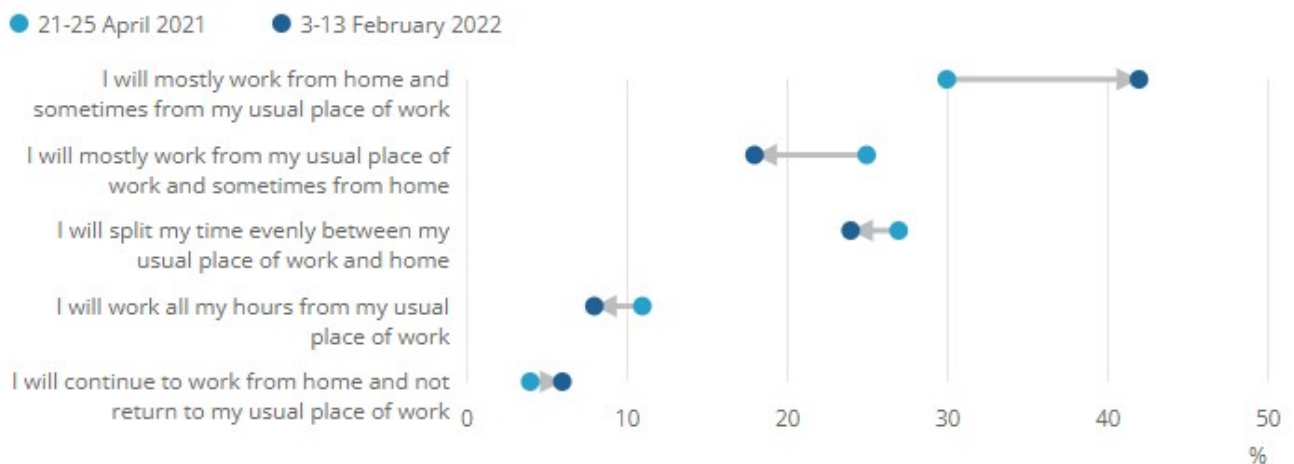
- 5.55 With any mixed-use size, and especially with one of the magnitude of the proposed development, there is typically a significant amount of internalisation or linked trips. For example, a person could travel to the site by car to work within the office space and at lunch, they could walk to one of the proposed food and beverage outlets within the development. This trip is considered to be an internal or linked trip rather than an entirely new trip attracted to the food and beverage outlet from outside of the site. The site has been developed to become a new neighbourhood that provides the facilities that residents and employees require, therefore, reducing their need to travel.
- 5.56 Considering the sustainable transport strategy for the site along with the permeability of the site for pedestrians and cyclists, it is expected that a large number of trips to local facilities would remain on site and be made on foot or by cycle rather than a short car trip.

Residential Internalisation

- 5.57 The pandemic forced many people to work from home and since then, working habits have changed now that many employers and employees are aware of the options available to them. Unfortunately, the 2021 Census data for 'Method of Travel to Work' is flawed as it asked people how they travelled at the time of the pandemic and not how they would normally travel. This resulted in a dataset that was not representative of non-pandemic travel habits. However, to rectify this and provide a usable dataset, the Office for National Statistics (ONS) has been undertaking an 'Opinions and Lifestyle Survey'.

5.58 The chart in **Figure 5.4** below shows the future plans of workers who worked from home because of the pandemic (opinions taken between April 2021 and February 2022). The data clearly demonstrates that a large proportion of the working population intend to spend at least some of their working hours from home.

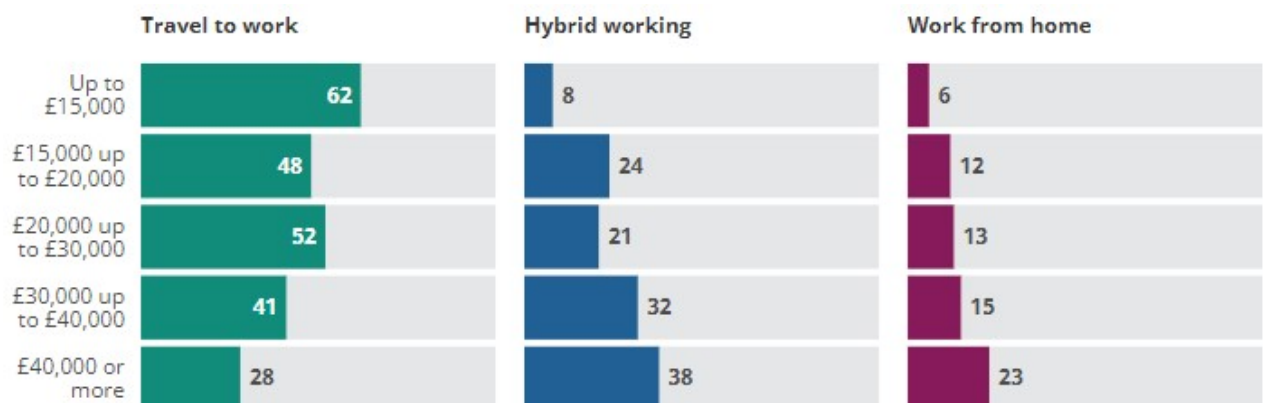
Figure 5.4: Working Habits and Preferences



Source: Office for National Statistics – Opinions and Lifestyle Survey

5.59 The chart in **Figure 5.5** below shows the current working arrangements of employees by income bracket. The data shows that hybrid and homeworking increases by income bracket. Across all salary bands the average proportion of those hybrid working is 21% and those always working from home is 12%.

Figure 5.5: Working Patterns



Source: Office for National Statistics – Opinions and Lifestyle Survey

5.60 To forecast the extend to which working from home therefore impacts the peak hour trip generation, a review of typical journey purpose but time of day has been completed. This has been based upon data gathered from the Department for Transport National Travel Survey for the period 2013-2017 (Table NTSQ03004a).

5.61 This data identified that between 08:00-09:00 commuting and business trips accounted for 39% of all trips, whilst between 17:00-18:00 these accounted for 45% of all trips. We have therefore combined these percentages with the 12% referenced above to determine the % working from home for all trips made during the peak hours (12% multiplied by 39% and 45% respectively).

5.62 Based on the above data it is considered reasonable to assume that during the AM and PM network peak hours respectively 4.7% and 5.4%% of residents forecast to travel to work using TRICS trip rates, would in fact not travel on any given day as they always work from home. Therefore, a 4.7% and 5.4% internalisation factor has been applied to the residential car driver trip generation during the AM and PM network peak hours respectively to account for this. To ensure this assessment is robust, no further reduction for those that hybrid work is being applied.

Office Internalisation

5.63 Based on the same data as above, it is considered reasonable to assume that 12% of employees that would drive to the office component of the proposed development, forecast using TRICS trip rates, would in fact not travel on any given day as they always work from home. Therefore, a 12% internalisation factor has been applied to the residential car driver trip generation to account for this. To ensure this assessment is robust, no further reduction for those that hybrid work is being applied.

Retail Internalisation

5.64 A 20% internalisation has been applied to retail trips based upon research completed by TRICS in their Research Report 05/01, through information gathered and presented in the Linked Trips and Town Centre Viability – Town and Country Planning study of 2009 and through local precedents set by approved applications in Ebbsfleet and Dartford:

- EDC/17/0038
- EDC/05/00308
- Gravesham 20210270

Hotel Internalisation

5.65 No internalisation of hotel trips has been proposed.

Food & Beverage Internalisation

5.66 A 20% internalisation has been applied to Food & Beverage trips based upon the same research set out above for retail trips.

GP Internalisation

5.67 In consideration of the potential trip generation associated with the proposed medical services, it has been forecast that the residential population of the site (5,552 residents) would require access to 3.1 GPs, with an average of 4.4 GP's per practice (Socio-Economics and Health ES Chapter). The proposed floor space for the medical services is in line with the typical floor area of surgeries

presented in TRICS and as such the on-site provision of a single practice would meet the demand created by the site.

- 5.68 With the forecast demand equating to 70% of provision of the medical services on site (3.1 GPs demanded / 4.4 GP's provided) it has been considered that an internalisation factor of just 50% for the medical services is a robust, worst case assessment to account for any local residents moving and retaining their existing GP.

Nursery

- 5.69 With regard to the proposed nursery provision on site, the population forecasts for the site set out by the Socio-Economics and Health chapter of the Environmental Statement identify demand for 105 nursery places. This is in addition to an existing local deficit of 229 places, limiting the scope of new residents to use off-site nurseries. The proposed floor area for the nursery provision is forecast to provide approximately 200 places. As a result, it has been assumed that an internalisation factor of 50% is appropriate.

Local Services Internalisation

- 5.70 A 90% internalisation factor has been applied to local services trips due to the nature of the use and the specific purpose of service the local community.

Community Use

- 5.71 The Cambourne Village TRICS Survey – Technical Report presents the results of a detailed survey of a mixed-use residential development in Cambourne, Cambridgeshire. As part of the survey, the internal and external trips made to a community centre were provided. An extract of the relevant charts is shown overleaf in **Figure 5.6**.
- 5.72 The data showed that almost all trips made to the community centre and of those that were external to the site, they were made by those working within the development. These trips were considered linked trips. Based on this information a 20% internalisation factor has been applied to community use trips.

Revised Vehicular Trip Rates and Trip Generation Summary

- 5.73 Using these internalisation rates, a revised summary of the weekday trip generation for each use is presented below and overleaf at **Table 5.12**. These represent the flows which have been used within the traffic impact assessment.

Table 5.12: Proposed Weekday Vehicular Trip Generation

Use	Internalisation	Peak Hour	Trip Generation	
			Arrival	Departure
Residential	4.7%	AM	187	584
	5.4%	PM	533	281
Retail	20%	AM	34	9
		PM	38	148

Food and Beverage	20%	AM	-	-
		PM	134	88
Office	12%	AM	221	17
		PM	16	171
Hotel	0%	AM	30	59
		PM	61	33
Local Services	90%	AM	4	4
		PM	6	6
GP	50%	AM	18	10
		PM	8	13
Nursery	50%	AM	10	7
		PM	7	10
Community Use	20%	AM	13	10
		PM	2	2

Saturday

- 5.74 As with the weekday trip rate forecasts, a revised assessment has been completed for the Saturday peak period across the site. The outputs from TRICS are included in **Appendix J**.

Residential (C3)

- 5.75 A total of 3,500 residential units are proposed on site with an anticipated composition comprising 90% private housing and 10% intermediate affordable housing. Based upon the 'Socio-Economics and Health chapter of the Environmental Statement' (Chapter 6) submitted in support of the application, the anticipated breakdown of residents is presented in **Table 5.13** below.

Table 5.13: Residential Population

Age Group	Census-based Population Estimate
Pre-School Aged Children	283
Primary Aged Children	135
Secondary Aged Children	107
Tertiary Aged Children	83
Young Adult	407
Core Working	3,241
65+ Population	1,296
Total	5,552

- 5.76 A review of the parameters selected to establish the weekday trip rates for the residential element of the site identified that there was no Saturday data available for any of the selected site. A review was therefore completed to establish which sites offered both weekday and weekend survey data from

within the TRICS database. The findings were that the category of 'houses privately owned' was the only category to provide this.

5.77 We have therefore extracted trip rates for the weekday and weekend for 'houses privately owned' and then derived a factor to allow up to generate a more representative trip rate for private flats on a Saturday. The criteria used to complete this for both a weekday and a Saturday was therefore as set out below:

- Residential
 - Land Use: Residential
 - Category: Houses privately owned
 - Regions: England excluding Greater London
 - Floor Area / Dwelling: 6-4344 dwellings
 - Date Range: 01/01/15-09/11/22
 - Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.78 The results of this search illustrating the peak hour trip rates for the AM and PM weekday and Saturday are presented in **Table 5.14** below.

Table 5.14: Residential Trip Rates

Use	Peak Hour	Trip Rates	
		Arrivals	Departures
Residential (per unit)	AM (08:00-09:00)	0.146	0.378
	PM (17:00-18:00)	0.343	0.159
	Saturday (17:00-18:00)	0.262	0.148

5.79 Using the above data, we have derived a weekday to Saturday factor by proportioning the change from weekday to weekend for the land use. This has then been applied to the approved weekday trip rate for private flats to derive the daily trip rates for the proposed residential uses. The factors derived are set out below and overleaf in **Table 5.15**.

Table 5.15: Residential Weekday to Saturday Trip Factor

Use	Peak Hour	Trip Rate Factor	
		Arrivals	Departures
Residential (per unit)	07:00-08:00	0.67	0.39
	08:00-09:00	0.59	0.55
	09:00-10:00	0.98	1.07
	10:00-11:00	1.34	1.39
	11:00-12:00	1.17	1.37

Use	Peak Hour	Trip Rate Factor	
		Arrivals	Departures
	12:00-13:00	1.11	1.15
	13:00-14:00	1.05	1.24
	14:00-15:00	1.14	0.91
	15:00-16:00	0.67	0.73
	16:00-17:00	0.8	0.99
	17:00-18:00	0.78	0.97
	18:00-19:00	0.62	0.85
	19:00-20:00	0	0
	20:00-21:00	0	0

- 5.80 These factors have then been applied to the approved weekday residential trip rates to derive the Saturday trip rates and ultimate trip generation associated with the residential uses on site. These are presented between 12:00 and 15:00 in **Table 5.16** below.

Table 5.16: Residential Trip Rates

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrivals	Departures	Arrivals	Departures
Residential (per unit / total)	12:00-13:00	0.070	0.084	245	294
	13:00-14:00	0.054	0.099	187	347
	14:00-15:00	0.073	0.070	255	245

- 5.81 The trip rates extracted result in a forecast of 539 two-way trips during the 12:00-13:00 hour. The maximum parking provision across the residential units is remains capped at 0.5 spaces per unit resulting in a maximum total of 1,750 parking spaces.

Hotel (C1)

- 5.82 The development proposal includes for a 300-bedroom hotel within the site equating to 20,000m² of gross external floor area. To forecast the anticipated trip generation associated with this element of the site, hotel trip rates per room have been extracted from the TRICS database using the criteria set out below:

— Hotel

- Land Use: Hotel, Food & Drink
- Category: Hotels
- Regions: England and Wales excluding Greater London
- Bedrooms: 50-400 beds

- Date Range: 01/01/14-10/08/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.83 The results of this search provided only a single site within the TRICS database. The forecast resulting trip generation is presented in **Table 5.17** below.

Table 5.17: Hotel Trip Rates and Generation

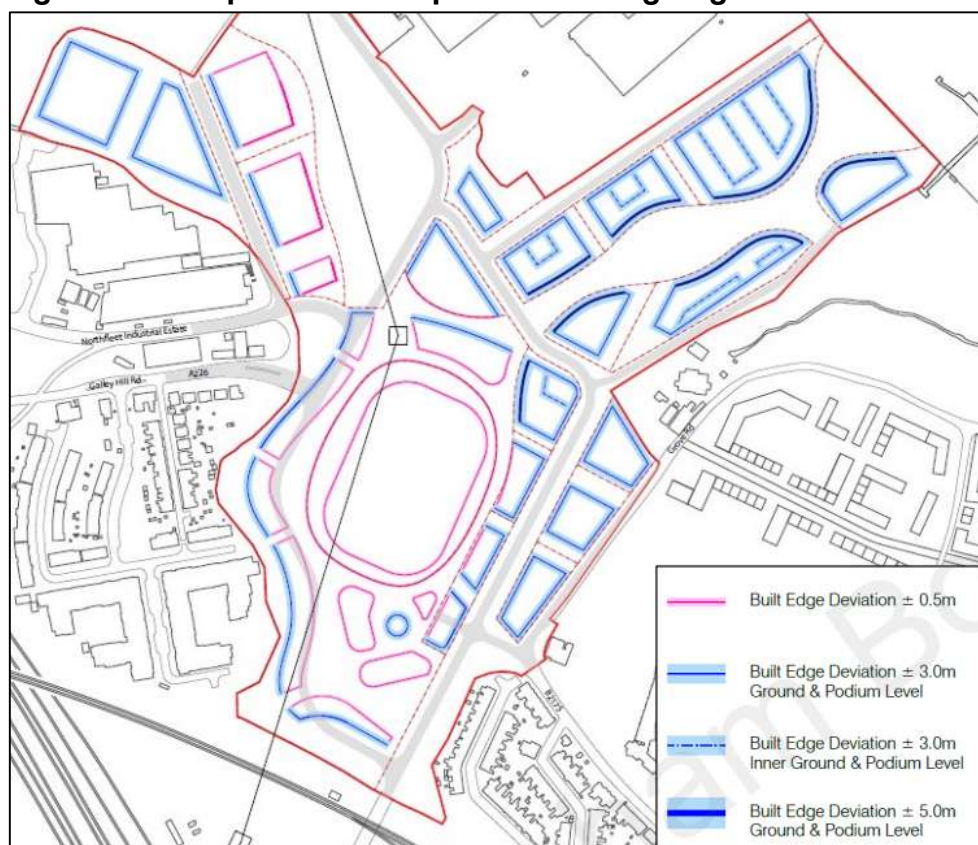
Use	Peak Hour	Trip Rates		Trip Generation	
		Arrivals	Departures	Arrivals	Departures
Hotel (per bedroom / total)	12:00-13:00	0.202	0.182	61	55
	13:00-14:00	0.232	0.121	70	36
	14:00-15:00	0.162	0.273	49	82

5.84 The trip rates extracted result in a forecast of 131 two-way trips during the 14:00-15:00 hour which is the peak hour for this land use.

Retail (E(a))

- 5.85 A total of 22,500m² of retail floor space is proposed across the site as part of the retail village envisaged on site. This is set out by the masterplan and safeguarded by the Parameter Plans submitted in support of the application.
- 5.86 The retail units proposed as part of the retail village will be no larger than 560m², with the significant majority smaller than 375m². The location and form of these retail units is prescribed by the 'Proposed Development Building Edge Deviation Plan (Ground Floor and Podium)' which is included as Figure 4.7 in Chapter 4 of the Environmental Statement.
- 5.87 There is flexibility within the site layout, whereby routes, spaces and building boundaries are not completely fixed but are subject to limits of deviation. The limits of deviation with regards to building edge vary from +/- 0.5m to +/- 5m of deviation, as specified on the Parameter Plans. An extract of this plan is included overleaf in **Figure 5.6**.

Figure 5.6: Proposed Development Building Edge Deviation Plan



- 5.88 As a result of this limitation in the massing and area of the retail units, trip rates have been extracted from the TRICS database for comparable retail uses using the criteria set out overleaf. The proposed retail component of the site is expected to be a mix of open-air retail units similar to Bicester and Ashford Shopping villages. Therefore, to capture suitable mix of units the Factory Outlet Centres category has been used as typical retail would not provide for the variety of potential units without splitting the areas into specific, more defined land uses.
- 5.89 These rates have been extracted per parking space due to the fact that the proposed development has a finite supply of vehicular parking on site, and there is very limited scope for travelling visitors to park in the proximity of the retail village off site. Therefore, parking provision is a constraining factor with regards to the number of trips that can visit the retail component of the site. By using a trip rate per space, the turnover of parking will provide an accurate representation of the trip generation.

— Retail

- Land Use: Retail
- Category: Factory Outlet Centres
- Regions: England excluding Greater London
- Floor Area / Dwelling: 3,857-23,350
- Date Range: 01/01/14-07/12/14

- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

- 5.90 The above selection criteria only yielded two results from the TRICS database, which were both surveyed on a Sunday. The TRICS database has a limited selection of comparable sites suitable for use within the last 10 years. However, by extending the search back to the year 2000, two sites are available from 2001 that were surveyed on a Saturday. Furthermore, the sites reside in Kent, the Ashford outlet, and Essex, the Freeport Shopping Centre in Braintree and are also located in close proximity to a train station.
- 5.91 Applying the proposed quantum of retail development to the trip rates provided a trip generation and parking accumulation for a Saturday, as shown in **Table 5.18** below.

Table 5.18: Saturday Retail Trip Generation and Parking Accumulation

Time Period	Trip Rates			Trip Generation			Accumulation
	In	Out	Total	In	Out	Total	
08:00-09:00	0.097	0.026	0.123	68	18	86	50
09:00-10:00	0.258	0.047	0.305	181	33	214	197
10:00-11:00	0.382	0.112	0.494	267	78	346	386
11:00-12:00	0.420	0.229	0.649	294	160	454	520
12:00-13:00	0.320	0.318	0.638	224	223	447	522
13:00-14:00	0.463	0.385	0.848	324	270	594	576
14:00-15:00	0.506	0.465	0.971	354	326	680	605
15:00-16:00	0.395	0.472	0.867	277	330	607	551
16:00-17:00	0.274	0.529	0.803	192	370	562	372
17:00-18:00	0.109	0.427	0.536	76	299	375	150
18:00-19:00	0.022	0.246	0.268	15	172	188	0

- 5.92 **Table 5.18** shows that the Saturday peak hour for two-way trips is between 14:00 and 15:00, with a flow of 680 vehicles. This is also when the peak parking accumulation of 605 vehicles (86% full) is expected to occur. This demonstrates that the car park is suitably sized to accommodate a typical level of demand for a Saturday, with sufficient capacity for seasonal variations.

Food and Beverage (E(b))

- 5.93 A total of 9,500m² of food and beverage uses are proposed across the site.
- 5.94 To forecast the anticipated trip generation associated with this element of the site, Trip rates per 100m² have been extracted from the TRICS database using the criteria set out below:
- Food and Beverage
 - Land Use: Hotel, Food & Drink
 - Category: Pub/Restaurant

- Regions: England excluding Greater London, Scotland
- Floor Area: 112sqm-2,384sqm
- Date Range: 01/01/15-14/05/22
- Selected Locations: Edge of Town, Suburban Area

5.95 The results of this search provided two sites for a Saturday assessment and the forecast resulting trip generation is presented in **Table 5.19**, below with the TRICS data included in Appendix C.

Table 5.19: Food and Beverage Trip Rates and Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrivals	Departures	Arrivals	Departures
F&B (per 100 sqm)	12:00-13:00	3.21	1.981	278	171
	13:00-14:00	3.379	2.801	283	242
	14:00-15:00	2.117	2.596	183	224

5.96 The trip rates extracted result in a forecast of 526 two-way trips during the 13:00-14:00 hour which is the peak for this land use.

Stadium

5.97 As Ebbsfleet United Football Club currently has permission for their stadium to accommodate up to 6,000 spectators (as set out within the Planning History Summary section), a match-day trip generation exercise has not been undertaken for a football match as this already exists on the network.

5.98 In consideration of the worst-case Saturday assessment, impacts are considered to be greatest on a non-matchday due to the linked trips that are expected between spectators and retail / food and beverage. The inclusion of spectators would, in effect, reduce the single purpose trips associated with these uses thereby reducing the net impact on the network.

Office(E(g))

5.99 A total of 18,500m² of office land uses are proposed across the development site. Given the nature of office usage it is not considered that any generation would be associated with this use during the Saturday peak hours.

Non-residential Flexible Uses (E)

5.100 A total of 5,000m² of non-residential, flexible land uses are proposed on site comprising a mix of class E uses. These are broken down as follows:

- 5,000m²
- 1,100m² Local services (E(c))

- 1,200m² Indoor Sport (E(d))
- 1,500m² Medical services (E(f))
- 1,200m² Nursery (E(g))

5.101 For the proposed indoor sport use it is noted that there is currently a fitness centre located within the red line boundary of the site (Snap Fitness 24-7) which is approximately the same size as that proposed (c. 1,000m²) As a result of this, it is considered this represent a like-for-like replacement and that there would be no net uplift in trips associated with this use.

5.102 For the medical services, there is no data within the TRICS database for a Saturday for any GP surgeries. A review of typical GP surgery operation also identifies that typically most are close, or if open, only for specialist appointments. In consideration of the lack of data, we are proposing to use the weekday trip generation for the Saturday.

5.103 For the proposed nursery uses it is again assumed that there would be no activity for this use due to the nature of the operation during the Saturday peak hour.

5.104 To establish the forecast trip generation associated with these remaining uses, Trip rates per 100m² have been extracted from the TRICS database using the criteria set out below:

- Local Services (E(c))

- Land Use: Retail
- Category: Shopping Centre – Local Shops
- Regions: England excluding Greater London
- Floor Area / Dwelling: 210sqm-8310sqm
- Date Range: 01/01/14-15/10/21
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

- Medical Services (E(f))

- Land Use: Health
- Category: GP Surgeries
- Regions: England excluding Greater London
- Floor Area / Dwelling: 210sqm-8310sqm
- Date Range: 01/01/14-10/08/22
- Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.105 The results of the above methodology and search, and the forecast resulting trip generation, in consideration of the trip generating factors set out above, are presented in **Table 5.20** below with the TRICS outputs included in Appendix D.

Table 5.20: Non-Residential Flexible Uses

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Local Services (per 100 sqm)	12:00-13:00	6.213	6.361	62	64
	13:00-14:00	10.059	9.024	101	90
	14:00-15:00	11.243	10.651	113	107
GP (per 100 sqm)	12:00-13:00	1.862	2.103	25	29
	13:00-14:00	1.683	1.763	23	24
	14:00-15:00	2.265	2.077	31	28

5.106 The local services trip rates extracted result in a forecast of 219 two-way trips during the 14:00-15:00 hour which is the peak for this land use. The GP trip rates extracted reflect the peak from the weekday as set out in the preceding paragraphs and result in a forecast of 59 two-way trips during the same peak hour.

Community Uses (F)

5.107 A total of 4,000m² of community uses are proposed across the site. To forecast the anticipated trip generation associated with this element of the site, a review of the TRICS database was completed. This review identified that there is no data available for Saturdays. Therefore, we have retained the weekday trip rates agreed previously. These rates were extracted from the TRICS database using the criteria set out below:

- Community Use
 - Land Use: Leisure
 - Category: Community Centre
 - Regions: England excluding Greater London
 - Floor Area / Dwelling: 100sqm-2,329sqm
 - Date Range: 01/01/14 – 28/04/22
 - Selected Locations: Edge of Town, Suburban Area, Neighbourhood Centre

5.108 The results of this search and the forecast resulting trip generation is presented in **Table 5.21** overleaf with the TRICS outputs included in Appendix E.

Table 5.21: Community Use Trip Rates and Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrival	Departure	Arrival	Departure
Community Use (per 100 sqm)	12:00-13:00	0.388	0.291	14	11
	13:00-14:00	0.534	0.485	19	18
	14:00-15:00	0.146	0.243	5	9

5.109 The community use trip rates extracted result in a forecast of 37 two-way trips during the 13:00-14:00 hour which is the peak for this land use.

Weekday Vehicular Trip Rates and Trip Generation Summary

5.110 **Table 5.22** below provides a summary of the vehicular trip rates extracted from the TRICS database for each land use for the identified peak hour across all development types which is 13:00-14:00.

Table 5.22: Vehicular Trip Generation

Use	Peak Hour	Trip Rates		Trip Generation	
		Arrivals	Departures	Arrivals	Departures
Residential (per unit)	13:00-14:00	0.054	0.099	187	347
Retail (per parking space)	13:00-14:00	0.463	0.385	324	270
Food and Beverage (per 100sqm)	13:00-14:00	3.279	2.801	283	242
Office (per 100 sqm)	13:00-14:00	0	0	0	0
Hotel (per room)	13:00-14:00	0.232	0.121	70	36
Local Services (per 100 sqm)	13:00-14:00	10.059	9.024	101	90
GP (per 100 sqm)	13:00-14:00	1.683	1.763	23	24
Nursery (per 100 sqm)	13:00-14:00	0	0	0	0
Community Use (per 100 sqm)	13:00-14:00	0.543	0.485	19	18

Internalisation

5.111 We have sought to retain the internalisation rates presented for the weekday assessments where applicable. For instance, we have not sought to include residential internalisation for working from

home as no office uses are forecast to generate trips during the peak periods. These internalisation rates are as follows.

- 5.112 A summary of the internalisation rates for each land use, and the subsequent trip generation for each use is presented below at **Table 5.23**.

Table 5.23: Proposed Saturday Vehicular Trip Generation

Use	Internalisation	Peak Hour	Trip Generation	
			Arrival	Departure
Residential	0%	13:00-14:00	187	347
Retail	20%	13:00-14:00	259	216
Food and Beverage	20%	13:00-14:00	227	194
Office	0%	13:00-14:00	0	0
Hotel	0%	13:00-14:00	70	36
Local Services	90%	13:00-14:00	10	9
GP	50%	13:00-14:00	11	12
Nursery	0%	13:00-14:00	0	0
Community Use	20%	13:00-14:00	16	14

- 5.113 The resulting total forecast trip generation across the site during the Saturday peak hour of 13:00 to 14:00 is 780 arrivals and 828 departures.

6 Traffic Assessment Methodology

- 6.1 This chapter outlines the traffic assessment methodology used in the assessment of the potential traffic impacts associated with the development proposals.
- 6.2 The methodology for the traffic assessment was agreed with KCC during the pre-application correspondence for the outline application, which confirmed the need to use the Kent Transport Model (KTM) for the initial phases of the traffic impact assessment.
- 6.3 It was then agreed that the outputs from the KTM model could be used to further assess the impacts of the proposals on individual junctions on the local highway network.

Kent Transport Model Assessment (KTM) Methodology

- 6.4 To enable the successful use of the KTM numerous scoping meetings were held to agree the parameters for the assessment and the information required to allow this. The KTM methodology outlined within the Transport Assessment is unchanged and has therefore there are no updates to this section.

KTM Road Network

- 6.5 The information presented within the TA remain valid and as such, no updates are required for this section.

KTM Development Trip Generation

- 6.6 As outlined within the Transport Assessment, the agreed vehicle trip rates (cars, LGV, HGV) for the weekday AM and PM peak hours and Saturday peak hour, for all land use types proposed as part of the development have been used to inform the KTM modelling.
- 6.7 The trip generation forecasts outlined within **Section 5** of this report have been used in this regard with the assumption made that due to the limited model years already within the KTM, all development would be in place for the 2030 model year.

KTM Traffic Distribution

- 6.8 The distribution assumptions and information outlined within this section of the Transport Assessment are unchanged.

KTM Assessment Scenarios

- 6.9 Since the submission of the TA, there has been further uncertainty surrounding the delivery of the Lower Thames Crossing (LTC), and in particular the timeline for this to be implemented should it be granted consent. As a result, the 2030 model within the KTM is not considered to represent a time whereby the LTC is in place.
- 6.10 A Saturday model has been developed specifically for this TAA as one did not previously exist within the KTM. We provided ATC traffic flow information for the following highway links:

- A226 London Road
- A2260
- B255
- London Road
- A226 Stonebridge Road
- A226 Thames Way

- 6.11 This data was supplemented with traffic surveys conducted at ten local junctions which are set out in the following section. Further information regarding the derivation of the Saturday model is include at Section 1.6 of the Jacobs Impact Analysis Note provided in **Appendix K**.
- 6.12 Highway model runs have therefore been completed within the KTM for 2030 and 2045 without the LTC in-situ. The results of the KTM model runs are included within **Appendix K**.

Junction Modelling

- 6.13 The junctions included for modelling within this TAA are presented below:
- Junction 1: New A226 Galley Hill Road / Lower Road / A226 Stonebridge Road junction;
 - Junction 2: New Site Access / Grove Road / B2175 Stonebridge Road junction;
 - Junction 3: Existing A226 / Thames Way junction;
 - Junction 4: Existing A226 Thames Way / A2260 Ebbsfleet Gateway junction;
 - Junction 5: Existing A2260 Ebbsfleet Gateway / International Way / B259 junction;
 - Junction 6: Existing A226 London Road / Pilgrim's Road / A226 Galley Hill Road / High St junction;
 - Junction 7: Existing A226 London Road / Manor Way / Craylands Lane junction;
 - Junction 8: A226 London Road / A206 / B255 junction;
 - Junction 9: Existing A206 / Station Road / Station Approach junction;
 - Junction 10: New A226/Access Roundabout

7 Traffic Impact Analysis

- 7.1 This section of the report summarises the results of the KTM modelling exercise and also the stand-alone capacity assessment for junctions 1 -10 as outlined previously.
- 7.2 The results tables provide estimated queue lengths in PCUs (Passenger Car Units) and average delay in seconds. The tables presented below show a summary of this estimated data to give an assessment of the future operational performance of the junctions for the future year of 2030.
- 7.3 The development proposals comprise significant revisions to the highway layout in the vicinity of the site and as such Junction 1 and Junction 2 take different forms to that currently in place. Furthermore, Junction 10 is a new roundabout junction proposed along the realigned A226. The indicative and modelled layouts of these junctions are provided in the highway plans set out within **Appendix F**.

KTM Modelling

Local Highways Network

- 7.4 In reviewing the outputs from the KTM model, the first element reviewed is the Level of Service (LoS) Plots. These plots utilise an alphabetised score depending on the level of service forecast through each junction. **Figure 7.1** below summarises each level.

Figure 7.1: Level of Service Description

LOS Level	Description
A	Level A represents the best quality of traffic where the driver has the freedom to drive with free flow speed
B	Level B represents good traffic quality where driver can reasonably maintain and maneuverability within the traffic stream is slightly restricted.
C	Level C represents stable traffic flows, at or near free flow. Ability to manoeuvre through lanes is noticeably restricted and requires awareness.
D	Level D represents almost unstable traffic flows. Speeds slightly increase. On this level driver comfort decreases.
E	Level E represents unstable traffic flows, operating at capacity. Driver's level of comfort becomes poor.
F	Level F represents the worst traffic quality with forced or breakdown traffic flows. Travel time cannot be predicted, with generally more demand than capacity.

- 7.5 The results of the KTM modelling identify that Junction 4, 5 and 6 will all suffer from a poor level of service (E-F) even before the development is delivered with the LoS solely F with development in place. The results also identify that Junction 2, 3 and 10a are negatively affected by the proposals with these junctions moving from A to C, A to B and B to C respectively.
- 7.6 The remainder of junction are forecast to remain within the same category, or even improve in the case of Junction 1.

Strategic Highway Network

- 7.7 To gauge the impact on the Strategic network to the south of the site on the A2 corridor, the Volume over Capacity Ratio has been reviewed for the with and without development scenarios. The figures presented in Appendix D of the Jacobs report identify that the A2 is already close to capacity in the vicinity of the site with ratios in excess of 85 for the entirety of the westbound carriageway and the majority of the eastbound carriageway.
- 7.8 A review of Figure 1 and 2 (AM) and Figure 3 and 4 (PM) shows no significant or severe change on the A2 corridor with regard to the ratio when adding the development, with the exception of a small section of the A2 westbound movement to the east and west of the Pepper Hill junction. Crucially, there are no significant changes to ratios at any of the A2 junctions included in the outputs as a result of the development proposals.
- 7.9 The results are similar for the Saturday assessment (Figures 1 and 2 in Appendix H of the Jacobs report) with minor impacts forecast on Hall Road as it crosses the A2 corridor at the Pepper Hill junction.

Summary

- 7.10 The KTM is a useful tool in understanding the wider impact of the proposed development across the local and strategic network. The results of the assessment scenarios identifies that a number of local junctions are forecast to experience poor levels of service though the effect is far less material on the Strategic network. The results identify existing constraints on the A2 corridor, but that the impacts of the development on these would be negligible.
- 7.11 The outputs of the KTM have been taken forward to understand the impacts of the development on the local and strategic network through standalone modelling which is completed in the following section.

Stand Alone Junction Modelling

- 7.12 The KTM model only identified that Junctions 4, 5 and 6 would experience a poor level of service during the 2030 with development future year. To ensure the full impacts of the development can be assessed however, all 10 junctions have been modelled to review the forecast impacts and understand the potential for queues and delay.
- 7.13 This modelling has been based upon the KTM traffic flow outputs provided in Appendix B and F of the Jacobs report. Full copies of the junction modelling output files and junction geometry is provided within **Appendix L**.

Junction 1: New A226 Galley Hill Road / Lower Road / A226 Stonebridge Road junction

- 7.14 Junction 1 has not been modelled in its current form as the proposals will realign and re-provide this junction. It has therefore only been modelled for a future year with development scenario as it will not exist without the development in place. The results of the 2030 Base plus Development (Without LTC) assessment are provided below in **Table 7.1** overleaf.

Table 7.1: Junction 1 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)
2030 With Development Flows (Without LTC)									
Link Road (North) - Ahead	55.6%	14.1	4.8	34.3%	9.4	2.7	17.3%	8.2	1.2
Link Road (North) - Right Turn	16.7%	10.3	1.1	8.8%	7.8	0.6	5.0%	7.7	0.3
Link Road (South) - Left Turn	28.7%	5.3	1.9	32.1%	5.5	2.2	32.3%	5.5	2.3
Link Road (South) - Ahead	63.3%	25.5	4.1	60.3%	20.5	4.6	34.9%	16.6	2.3
A226 London Road	64.5:64.5%	15.9	5.3	64.4:64.4%	18.2	4.8	37.8:37.8%	15.3	2.5

- 7.15 The results in **Table 7.1** shows that the revised A226 junction is forecast to operate within capacity and that the proposed development would not lead to any negative impacts regarding congestion. All the degree of saturation percentages are below 85% during all scenarios, with delay under 90 seconds on all arms, during all scenarios.

Junction 2: New A226 Stonebridge Road / Grove Road / B2175 Stonebridge Road junction

- 7.16 Junction 2 currently takes the form of a roundabout between the A226 Stonebridge Road, Grove Road and the B2175 Stonebridge Road. The development proposals seek to remove the roundabout and re-provide these connections via two new junctions. Grove Road would join the B2175 via a simple priority junction with the priority given to the ahead movements on the B2175 Stonebridge Road. This junction has therefore only been modelled for a future year with development scenario as it will not existing without the development in place. The results of the 2031 Base plus Development assessment are provided below in **Table 7.2** below.

Table 7.2: Junction 2 Modelling Results (North)

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC
2030 With Development Flows (Without LTC)									
Grove Road (NW)	0.6	21.01	0.29	0.5	16.93	0.32	0.3	12.21	0.22
B2175 (SE)	0.1	4.29	0.08	0.1	4.67	0.06	0.1	4.76	0.04
Site Access (N) – B2175 (SE)	0.1	8.35	0.10	0.1	8.15	0.05	0.1	8.46	0.12
Site Access – B2175 (SW)	0.6	16.95	0.38	0.2	14.99	0.20	0.6	15.61	0.39
B2175 (SE)	0.1	4.13	0.07	0.5	4.80	0.17	0.5	5.07	0.18

- 7.17 The results of the modelling identify that the proposed junction would operate within capacity during all scenarios with a peak RFC value of 0.39 during the PM peak at the Site Access for the movement to the B2175 (SW). This movement has a forecast delay of 17 seconds per PCU with a queue of just one vehicle.
- 7.18 With the removal of the existing roundabout, the A226 to the south has been realigned and given priority for ahead movements over movements to Grove Road or the B2175. This junction has therefore only been modelled for a future year with development scenario as it will not exist without the development in place. The results of the 2031 Base plus Development assessment are provided below in **Table 7.3** below.

Table 7.3: Junction 2 Modelling Results (South)

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)
2030 With Development Flows (Without LTC)									
A226 (S)	74.2	38.2	9	77.7	30.9	11.6	81.4	30.7	10.5
A226 W)	86.7	36.3	10.8	85.0	28.0	12.1	64.9	21.5	6.1
B2175 (N)	88.3	30.5	18.8	86.7	34.5	12.8	83.2	29.0	9.3

- 7.19 All arms of the proposed junction are forecast to operate within a Degree of Saturation (DoS) of 90% with delay consistently under 45 seconds across all scenarios. The peak queue forecast is 19 PCUs on the B2175 north during the AM peak. This link comprises two lanes, one right turn with capacity for approximately 8 vehicles and the second an unconstrained lane. Demand is predominately for the ahead movement from this lane (70/30 split) and as such it is considered that any queues forming within the right turn lane would not block the ahead movement.

Junction 3: A226 / Thames Way junction

- 7.20 Junction 3 is not proposed to be altered as part of the development proposals and therefore has been modelled as it is currently provided.

Table 7.4: Junction 3 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC
2030 With Development Flows (Without LTC)									
A226 (NE)	1.2	5.01	0.52	1.2	4.96	0.55	0.5	3.31	0.33
A226 (SE)	0.9	3.97	0.45	0.8	3.58	0.42	0.6	3.30	0.39
Car Park Access (SW)	0.0	3.55	0.01	0.0	3.76	0.04	0.0	3.50	0.04

- 7.21 The results in **Table 7.4** show that in the 2030 with development scenario the RFC values only reach a maximum of 0.55 during the PM peak period. This is significantly lower than the 0.85 RFC value that would warrant further investigation and significantly below the maximum capacity value of 1.0.

Junction 4: A226 Thames Way / A2260 Ebbsfleet Gateway junction

7.22 Junction 4 has been modelled in its current form for all assessment scenarios as no proposals are in place to change this layout. The results of the modelling are set out in **Table 7.5** below.

Table 7.5: Junction 4 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)
2030 With Development Flows (Without LTC)									
A226 Thames Way (N)	76.2:76.2%	28.9	11.5	75.8:75.8%	32.9	15.4	56.4:56.5%	24.1	7.2
A2260	83.8%	36.0	14.7	75.2%	39.0	15.6	78.7%	32.2	13.0
A226 Thames Way (S) - Left Turn	14.9:14.9%	4.7	1.0	16.7:16.7%	6.0	1.8	28.9:28.9%	5.0	1.9
A226 Thames Way (S) - Ahead	85.8%	49.1	12.3	74.6%	45.5	13.3	78.9%	41.9	10.3

7.23 The results in **Table 7.5** show that the proposed development would increase the congestion at Junction 4 during both the AM and PM peak scenarios. The maximum degree of saturation forecast would be 85.8% for the A2260 during AM peak, albeit this is still below 100% i.e. maximum capacity. A review of the associated forecast delay identifies a maximum delay of 49.1 seconds, a 5 second increase when compared to the 2022 scenario. It is therefore considered that this would not have a severe impact on delay through the junction.

7.24 Increases in queuing have also been reviewed and it is noted that increases on the A226 can be accommodated with no detrimental impacts on the operation of surrounding junctions.

Junction 5: A2260 Ebbsfleet Gateway / International Way / B259 junction

7.25 Junction 5 comprises a four-arm priority-controlled roundabout. All development scenarios have been assessed using the existing layout with the results summarised in **Table 7.6** below.

Table 7.6: Junction 5 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC
2030 With Development Flows (Without LTC)									
A2260 (E)	7.2	23.98	0.87	9.6	29.69	0.92	3.4	13.01	0.78
A2260 (S)	1.4	3.40	0.55	1.0	2.80	0.50	1.1	2.88	0.52
B259 (W)	1.8	8.50	0.64	0.9	5.26	0.46	0.9	5.58	0.46
International Way (N)	0.1	7.43	0.07	0.1	5.32	0.09	0.8	6.51	0.44

- 7.26 The results in **Table 7.6** shows that the proposed development would not lead to any significant concerns regarding congestion. The highest RFC value recorded is 0.92 along the A2260 (E) during the PM peak hour. This represents an uplift when compared to the 2022 modelling, however to understand the impact this would have on the operation of the junction and network the delay and queues have also been reviewed.
- 7.27 There would be a maximum delay of 29.69 seconds/pcu, equating to a queue length of just 10 vehicles. This level of queuing would not have a detrimental impact on the operation of the network and would not impede any upstream junctions during the AM, PM or Saturday peak hours.

Junction 6: A226 London Road / Pilgrim's Road / A226 Galley Hill Road / High St junction

- 7.28 Junction 6 comprises a four-arm signal junction. All development scenarios have been assessed using the existing layout with the results summarised in **Table 7.7** below.

Table 7.7: Junction 6 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)
2030 With Development Flows (Without LTC)									
A226 London Road (E)	57.3%	18.1	6.7	57.3%	19.6	6.2	43%	20.7	9.1
High Street (S)	45.5:45.5%	27.5	2.6	38.3:38.3%	28.1	2.6	45.2:45.2%	40.9	4.5
A226 London Road (W)	46.2%	14.7	5.8	59.4%	17.4	8.9	45.5%	27.2	8.6
Pilgrims Road (N)	0.0%	0.0	0.0	0.0%	0.0	0.0	0.0%	0.0	0.0

- 7.29 Junction 6 comprises a signalised four-arm junction with single lane approaches on all arms except High Street, which has a two-lane approach.
- 7.30 The results in **Table 7.7** show that the junction would operate within capacity and that the proposed development would not lead to any concerns regarding congestion. All the degree of saturation percentages are below 85% during all scenarios, with delay under 90 seconds on all arms, during all scenarios.

Junction 7: A226 London Road / Manor Way / Craylands Lane junction

- 7.31 Junction 7 comprises a signalised four-arm junction with single lane approaches on all arms with the exception of the A226 westbound approach which provides a two-lane approach with a dedicated right-turn lane into Manor Way.
- 7.32 The results of the modelling exercise are summarised in **Table 7.8** overleaf.

Table 7.8: Junction 7 Modelling

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)	Degree of Saturation (%)	Delay (s)	Queue (pcu)
2030 With Development Flows (Without LTC)									
A226 London Road (E)	52.1:52.1%	26.3	4.4	42.9:42.9%	24.5	3.5	75.8:75.8%	30.8	9.7
Craylands Lane (S)	61.8%	43.6	3.1	43.8%	37.4	2.1	10.9%	31.6	0.5
A226 London Road (W)	66.4%	30.7	6.5	78.3%	34.6	9.4	50.8%	23.6	5.5
Manor Way (N)	66.7%	39.8	4.4	79.3%	55.0	5.6	16.1%	32.2	0.7

- 7.33 The results in **Table 7.8** show that the junction would operate within capacity and that the proposed development would not lead to any concerns regarding congestion. All the degree of saturation percentages are below 85% during all scenarios, with delay under 90 seconds on all arms, during all scenarios.
- 7.34 The maximum queue forecast is during the PM peak with a queue of 10 PCUs forecast on the A226 London Road (W) approach. This queue can be accommodated without affecting any upstream junctions.

Junction 8: A226 London Road / A206 / B255 junction

- 7.35 Junction 8 comprises a four-arm priority-controlled roundabout with multi-lane approaches on all arms. The junction has been modelled in its current form for the future year scenarios provided by the KTM outputs. The results are summarised in **Table 7.9** below.

Table 7.9: Junction 8 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC	Queue (PCU)	Delay (s)	RFC
2030 With Development Flows (Without LTC)									
A206 (North) - LEFT TURN	0.4	6.04	0.27	0.8	8.61	0.44	0.4	4.38	0.26
A206 (North) - AHEAD	1.3	5.13	0.55	7.6	21.85	0.89	0.3	2.56	0.23
A226 London Road (East)	11.8	35.39	0.94	16.8	62.57	0.98	0.2	2.46	0.15
B255 (South) - LEFT TURN	1.0	13.30	0.49	0.8	8.80	0.43	0.1	3.62	0.05
B255 (South) - AHEAD	7.2	26.71	0.89	2.1	8.27	0.67	0.1	2.31	0.07
A226 London Road (West)	3.0	16.44	0.75	2.0	9.17	0.67	0.1	2.05	0.11

- 7.36 During all modelled scenarios the maximum RFC value forecast remains below 100, though the AM and PM peak experience values over 90 on the A226 London Road (East). A further review of this link identifies a forecast delay of 36 seconds during the AM peak and 63 seconds during the PM peak.
- 7.37 The forecast queue on the A226 London Road comprise 12 and 17 PCUs respectively for the AM and PM peak periods. A review of the road layout identifies that with the two-lane entry to the junction, even during the PM peak, this level of queuing would not impact on the operation of the upstream network. The nearest road is Mounts Road to the east, which is over 130m, or 22 PCUs from the junction.
- 7.38 It is noted that delays will increase, but the delay and queue values are not considered to represent severe impacts with the junction, and all other arms continuing to operate well within capacity.

Junction 9: A206 / Station Road / Station Approach junction

- 7.39 Junction 9 comprises a four-arm roundabout with multilane approaches on three of the four arms. The junction has been modelled in its current form for the 2030 with development assessment scenarios.

Table 7.10: Junction 9 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC
2030 With Development Flows (Without LTC)									
Station Road (North)	0.2	3.57	0.14	0.2	5.56	0.19	0.0	2.55	0.03
Station Approach (East)	0.1	4.68	0.06	0.2	7.70	0.11	0.0	0.00	0.00
A206 St Clements Way (South)	1.6	3.96	0.60	0.8	2.88	0.43	0.2	1.92	0.19
A206 Crossways Boulevard (W)	0.3	1.78	0.23	0.9	2.38	0.48	0.1	1.30	0.11

- 7.40 The results in **Table 7.10** show that the proposed development would have a negligible impact on Junction 9. The maximum RFC value would be 0.43 which remains significantly below the threshold RFC of 0.85.
- 7.41 Queuing is forecast to peak at just 2 vehicles during the AM peak on the A206 St Clements Way arm with the junction considered to operate well during the with development scenario.

Junction 10: New Access Roundabout

- 7.42 Junctions 10 comprises the proposed new access roundabout along the realigned A226. This would be a three-arm roundabout with all accesses comprising single lane carriageways.

Table 7.11: Junction 10 Modelling Results

Movement	AM Peak Hour			PM Peak Hour			Saturday		
	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC	Queue (pcu)	Delay (s/pcu)	RFC
2030 With Development Flows (Without LTC)									
A – A226 (N)	1.2	6.21	0.54	1.1	5.73	0.51	0.5	4.47	0.35
B – Access	0.1	4.17	0.12	1.1	7.40	0.52	0.4	4.45	0.28
C – A226 (S)	2.5	9.00	0.72	2.6	9.36	0.72	2.0	7.66	0.66

7.43 The results in **Table 7.11** show that the proposed access junction is forecast to operate within capacity and that the proposed development would not lead to any concerns regarding congestion. All the RFC values are below 0.85 during all scenarios, with a maximum delay of just 9 seconds and maximum queue of up to three vehicles.

8 Mitigation

- 8.1 The junction capacity assessments completed in **Section 7** have identified that the operation of all the junctions assessed would not be severely affected by the proposed development.
- 8.2 It is noted that junctions 4, 5 and 9 recorded DoS and RFC values above 85% and 0.85 respectively. Although this is above the threshold that would usually warrant further investigation, a review of the delays and queue lengths has confirmed that the queuing at these junctions would not detrimentally impact the operation of surrounding junctions, or the network as a whole. As such, mitigation at these junctions is not considered to be necessary.

9 Summary and Conclusions

Summary

- 9.1 Vectos, part of SLR is appointed by Northfleet 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.
- 9.2 This Transport Assessment Addendum has been prepared in order to address comments raised by Kent County Council (KCC) in response to the Transport Assessment submitted in September 2023 to support the planning application (ref:2021064) 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.
- 9.3 This Addendum has addressed the comments made by KCC and GBC in response to the Transport Assessment submitted to support the outline application.
- 9.4 The road safety review determined that across the assessment area there were a total of 93 incidents between 2017 and 2022. These comprised of 77 slight incidents and 15 serious incidents and one fatal incident across the accident assessment area.
- 9.5 The proposed development will provide a maximum of 2,700 parking spaces, of which 1,750 will be for residential and 950 will be for non-residential uses.
- 9.6 The sites sustainable transport strategy will be supported by a mobility hub, which provides a focal point in an area or sites transport network. Their presence helps to facilitate the seamless integration of different modes of transport, multimodal supportive infrastructure, and placemaking strategies to create a centre of activity.
- 9.7 Mobility hubs support local living, low-car lifestyles and the reallocation of space from roads and carparking to housing and public realm and have the potential to contribute significantly to decarbonising transport.
- 9.8 The TRICS database, Census, NTS and first principles have all been used to estimate the likely trip generation associated with the site.
- 9.9 The Kent Transport Model (KTM) has been used to inform a robust modelling exercise to assess the potential impacts of the proposed development. The junction capacity assessments have identified that the operation of all the junctions assessed would not be severely affected by the proposed development.
- 9.10 It is noted that junctions 4, 5 and 9 recorded forecast DoS and RFC values above 85% and 0.85 respectively. Although this is above the threshold that would usually warrant further investigation, a review of the delays and queue lengths has confirmed that the queuing at these junctions would impact the operation of surrounding junctions, or the network as a whole. As such, mitigation at these junctions is not considered to be necessary.

9.11 The following addendum framework documents are appended to this report which outline objectives and measures to minimise and consolidate travel across a range of purposes:

- Appendix M – Framework Travel Plan
- Appendix N – Framework Construction Traffic Management Plan
- Appendix O – Framework Car Park Management Plan

Conclusions

9.12 In conclusion, based upon junction modelling informed by the KTM model, it is considered that there are no reasons relating to ‘transport and highways’ for not permitting the proposed regeneration of Northfleet Harbourside. Indeed, it is considered that the proposals will transform the public realm and highway infrastructure within Northfleet as well as encouraging more sustainable travel patterns.

Appendix A



**Growth, Environment
& Transport**

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BY EMAIL ONLY

10th February 2023

Dear Katherine,

Re: Outline Planning Application for a proposed development at Land Surrounding Ebbsfleet United Football Club, bounded By Lower Road, Railway Line, Grove Road and The River Thames, Northfleet, Gravesend (Ref: 20221064)

Thank you for consulting Kent County Council (KCC) on the outline planning application for a phased mixed-use redevelopment involving the demolition of existing buildings and structures including site preparation / remediation works, and the development of residential units (Use Class C3), Class E uses including floorspace for retail Class E(a)), food/beverage and drinking establishments (Use Class E(b)), local services (Use Class E(c)), indoor sport / recreation / fitness (use Class E(d)), healthcare space (Use Class E(e)), creche/nursery uses (Use Class E(f)), office floorspace (Use Class E(g)(i)), a new multi-use stadium with associated business and leisure facilities (sui generis), hotel (Use Class C1), community uses floorspace (Use Class F2). The phased redevelopment will include other sui generis uses, delivery of open space and significant realignment of the road network including the A226 Galley Hill Road / Stonebridge Road / Lower Road with hard / soft landscaping, car and cycle parking provisions, infrastructure works, ancillary and associated works.

In summary, and in considering the application as it currently stands, the County Council, as Minerals and Waste Planning Authority, raises an **objection** on the following grounds:

Minerals and Waste: The application is contrary to national and local development plan policies on safeguarding, and would undermine the adopted Mineral Strategy in the Kent Minerals and Waste Local Plan (KMWLP), which relies heavily upon wharves and importation facilities, as land-won resources are depleted.

The County Council, as Local Highway Authority, raises a **holding objection** on the following grounds:

Highways and Transportation: The planning application fails to provide sufficient detail regarding the Framework Car Park Management Plan, the Framework Travel Plan and the walking and cycling audit. A number of key plans and strategies have not been provided, including a Transport Strategy, Construction Route Plan, a Stage 1 Road Safety Audit and Designers Response, and plans regarding site access and sustainable transport upgrades. Modelling and traffic count data is required, and further consideration is needed for trip generation and mode share.

Public Rights of Way (PRoW): The application does not sufficiently address the significant impacts of the proposed development on Public Footpath NU1 and the National Trail including the adverse effect on user amenity and visual impacts. The proposed alternative PRoW routes that have been provided are not acceptable to the County Council.

The County Council has reviewed the outline planning application and sets out its comments below:

Highways and Transportation

The County Council, as Local Highway Authority, considers that the site is in a sustainable location, with short walking and cycling distances to local bus stops and both local and international railway stations. The proposals include a dedicated Fastrack route through the site and walking, cycling and car club facilities, all of which will further assist in achieving a mode shift away from the private car. However, the information provided is lacking in detail and in order for KCC to provide a robust assessment of the proposals, further information is required as set out within this response.

A number of plans / strategies that are required to be submitted with the application prior to determination have not yet been provided. These include:

- A Transport Strategy to demonstrate how the transport elements will be delivered over time.
- Detailed site access plans for all access points incorporating appropriate geometry, walking and cycling facilities, Fastrack segregation, visibility splays and tracking, to confirm these can be delivered. The plans should also incorporate the full diversion of the A226.
- Modelling results using the Kent Transport Model.
- A plan showing the areas intended for stopping up.
- A Stage 1 Road Safety Audit and Designers Response.
- Traffic count results.
- Plans showing proposed upgrades to local walking and cycling routes.
- Construction Route Plan.

Further discussion is required with regard to trip generation, mode share, distribution and committed developments, before the application is determined.

The County Council welcomes the walking and cycling audit; however, this should be expanded to include routes to additional facilities such as local bus stops, schools and the town centre for it to be acceptable.

The dedicated Fastrack route through the site is welcomed - and will be key to achieving mode shift away from the private car. The route through the site should be shown on a plan submitted as part of this planning application, along with proposed geometry, so this can be secured to any permission granted.

KCC advises that the Framework Car Park Management Plan and Framework Travel Plan need further detail. The Framework Travel Plan needs to include monitoring and review procedures and development of the Transport Review Group, for it to be acceptable.

The County Council, as Local Highway Authority, has provided detailed commentary on the application in Appendix 1 and would like to place a holding objection on the application until the above issues have been resolved.

Public Rights of Way (PRoW)

The County Council would draw attention to the existence of Public Footpath NU1 and the National Trail - the England Coast Path - which are directly affected by the development site. The Footpath (NU1) is identified on the attached extract of the Network Map of Kent (Appendix 2), which is a working copy of the Definitive Map. The existence of the right of way is a material consideration and the Definitive Map and Environmental Statement provide conclusive evidence at law of the existence and alignment of PRoW. While the Definitive Map is the legal record, it does not preclude the existence of higher rights, or rights of way not recorded on it. The National Trail is a leisure opportunity of considerable importance to both Gravesham and Kent, the use of which is expected to grow in the future and is heavily promoted on a national level.

The County Council is keen to ensure that its interests are represented within the local policy frameworks of the districts in Kent. KCC is committed to working in partnership with Gravesham Borough Council to achieve the aims contained within the [Rights of Way Improvement Plan](#) (ROWIP) which relate to quality of life, supporting the rural economy, tackling disadvantage and safety issues, and providing sustainable transport choices.

The impact on both the Public Footpath and the England Coast Path will be significant and KCC does not consider that the application addresses this sufficiently. The alternative routes are not acceptable as currently proposed. It should be noted that PRoW issues cannot be determined at a later Reserved Matters stage. The County Council therefore places a holding objection on this application, as a result of the adverse effect on user amenity and visual impact, to ensure these issues are fully addressed and resolved ahead of determination of this application.

Impact on Public Footpath and England Coast Path National Trail

Overall, the County Council considers that the references to the PRow network and the England Coast Path in the application are minimal:

- The routes do not appear on the majority of plans consistently, particularly the Illustrative Masterplan. Where the routes are shown (Transport Assessment Figure 4.4) they are not clear, and there is no correct labelling.
- Neither PRow nor the England Coast Path are mentioned in the Planning Statement document, particularly paragraph 5.205 Walking, Cycling and Public Transport.
- The routes in Figure 1 Walking and Cycling of the Walking and Cycling Assessment do not show PRow. This is available in larger print on request.
- The re-alignment of the A226 would appear to significantly impact the England Coast Path and the proposed diversion route would be unacceptable as it would appear adjacent to the new stadium - it is unclear and there is lack of detail. The Natural England report for the section of the England Coast Path refers to *'the proposed re-development of the area, where there may be an opportunity to align the trail closer to the coast'*. All options should be fully explored with the County Council and Natural England, and a Variation Report will be necessary for the diversion of the National Trail, before the application is determined. Any diversion of the PRow route will require County Council approval as the Local Highway Authority, and both these issues require engagement at this stage to resolve, and not later in the planning process.

General Comments

The County Council requires the following:

- A PRow Scheme of Management to be secured through a condition, detailing the PRow affected, including the England Coast Path, to cover the diversion procedure to enable a timely and legal delivery of any development; construction management (routes must remain open and safe for public use) and width, surface and signage on completion. Any phasing must ensure the delivery of infrastructure to support the development. This scheme of management to be approved by the County Council prior to the commencement of any works.
- Any Travel Plan submitted as part of the application must include the PRow network and opportunities provided for both active travel and leisure, health and wellbeing.

Section 106 (S106) / Contributions

KCC recognises that there is no mention of the wider PRow network within the Green Transport and Highways section of the S106 Agreement Heads of Terms. This should be amended as the County Council would request contributions as mitigation for the impact of the development on the PRow and to provide improvements to the wider connectivity. This is in line with the KCC ROWIP, a statutory KCC policy. The County Council considers that mitigation in the form proposed of new signage, planting and drop kerb crossings is not considered appropriate or sufficient.

The County Council would also draw attention to the following comments to the Applicant:

- No furniture, fence, barrier or other structure may be erected on or across PRow without the express consent of the Local Highway Authority.
- There must be no disturbance of the surface of the PRow, or obstruction of its use, either during or following any approved development without the express consent of the Local Highway Authority.
- No hedging or shrubs should be planted within 1 metre of the edge of the PRow.
- Any planning consent given confers no consent or right to close or divert any Public Right of Way at any time without the express permission of the Local Highway Authority.
- No Traffic Regulation Orders will be granted by the Local Highway Authority for works that will permanently obstruct the route unless a diversion order has been made and confirmed. If the Applicant needs to apply for a temporary traffic regulation order whilst works are undertaken, the County Council would need six weeks notice to process this.

Development Investment

The County Council has assessed the implications of this proposal in terms of the delivery of its community services and is of the opinion that it will have an additional impact on the delivery of its services. These impacts will require mitigation, either through the direct provision of infrastructure or the payment of an appropriate financial contribution.

The Planning Act 2008 and the Community Infrastructure Levy Regulations 2010 (the CIL Regulations) (Regulation 122) require that requests for development contributions of various kinds must comply with three specific legal tests:

1. Necessary,
 2. Related to the development, and
 3. Reasonably related in scale and kind
- These tests have been duly applied in the context of this planning application and give rise to the following specific requirements (the evidence supporting these requirements is set out in the attached Appendices).

Request Summary

	Per Applicable ¹ House (NIL)	Per Applicable Flat (x 1,589)	Total	Project
Primary Education	Nil	£1,700	£2,701,300.00	Towards expansion of a school locally within the KCC North Kent Education Area
Primary Land	Nil	Nil	Nil	N/a

¹ 'Applicable' excludes: 1 bed units of less than 56 sqm GIA, and any sheltered accommodation. Please confirm the number of 1 bed units proposed and that they are below this threshold.

Secondary Education	Nil	£1,294	£2,056,166.00	Towards any secondary school within three miles of the development
Secondary Land	Nil	£878.58	£1,396,063.60	Towards secondary school land for any secondary school within three miles of the development
Special Education Needs and Disabilities (SEND) School	Nil	£126.29	£200,674.81	Towards a SEND school within the KCC North Kent Education Area
Special Education Needs and Disabilities School Land	Nil	Nil	Nil	N/a

	Per Dwelling (x 3,500)	Total	Project
Community Learning	£16.42 ²	£57,470.00	Towards additional equipment, services, and resources to assist with the education and training of the new learners arising from this development at Gravesham Adult Education Centre
Youth Service	£65.50	£229,250.00	Towards youth service resourcing arising from this development or Miracles Youth Centre.
Library Service	£55.45	£194,075.00	Library service resourcing arising from this development or Gravesend Library .
Social Care	£146.88	£514,080.00	Towards specialist care accommodation, assistive technology systems and equipment to adapt homes, adapting community facilities, sensory facilities, and Changing Places arising from this development or at Age UK Fleming Resource Centre, Gravesend.
	All Homes built as Wheelchair Accessible and Adaptable Dwellings in accordance with Building Regs Part M 4 (2)		
Waste	£129.20	£452,200	Ebbfleet Waste Transfer Station
Highways	<i>Kent Highway Services will respond separately</i>		

² Please note that these figures are to be index linked by the BCIS General Building Cost Index from April 2020 to the date of payment (Apr-20 Index 360.3). They are valid for 3 months from the date of this letter after which they may need to be recalculated due to changes in district council housing trajectories, on-going planning applications, changes in capacities and forecast rolls, projects and build costs.

Justification for infrastructure provision/development contributions requested

The County Council has modelled the impact of this proposal on the provision of its existing services and the outcomes of this process are set out below and in Appendices 3a – 3d.

Education

KCC is the Statutory Authority for education and is the Strategic Commissioner of Education Provision and provides the following commentary below.

Primary Education

The impact of this proposal on the delivery of the County Council's services is assessed in Appendix 3a.

The proposal gives rise to additional primary school pupils during occupation of the development. This need, cumulatively with other new developments in the vicinity, can only be met through a new primary school.

This proposal has been assessed in accordance with the adopted KCC Development Contributions Guide methodology of '*first come, first served*' assessment; having regard to the indigenous pupils, overlain by the pupil generation impact of this and other new residential developments in the locality.

Secondary School Provision

The impact of this proposal on the delivery of the County Council's services is assessed in Appendix 3a.

A contribution is sought based upon the additional need required, where the forecast secondary pupil product from new developments in the locality results in the maximum capacity of local secondary schools being exceeded.

The proposal is projected to give rise to additional secondary school pupils from the date of occupation of this development. This need can only be met through the provision of new accommodation at the secondary school and will be provided and delivered in accordance with the timetable and phasing in the Local Planning Authority's Infrastructure Delivery Plan, where available.

KCC notes that this process will be kept under review and may be subject to change as the Local Education Authority will need to ensure provision of the additional pupil spaces within the appropriate time and at an appropriate location.

It is also noted that this process will be kept under review and may be subject to change, including possible locational change, as the Local Education Authority has to ensure provision of sufficient pupil spaces at an appropriate time and location to meet its statutory

obligation under the Education Act 1996, and as the Strategic Commissioner of Education provision in the County under the Education Act 2011.

KCC will commission additional pupil places required to mitigate the forecast impact of new residential development on local education infrastructure generally in accordance with its [Commissioning Plan for Education Provision](#) (2022-2026) and [Children, Young People and Education Vision and Priorities for Improvement](#) (2018-2021).

Community Learning

The County Council provides community learning facilities and services for further education in line with KCC policies as set out in [Framing Kent's Future](#) (2022-2026). Community Learning and Skills (CLS) helps people moving to a new development overcome social isolation and encourages community cohesion, as well as improving skills in a wide range of areas.

There is an assessed shortfall in provision for this service. The current adult participation in both District Centres and Outreach facilities is in excess of current service capacity, as shown in Appendix 3b, along with the cost of mitigation.

To accommodate the increased demand on KCC Community Learning, the County Council requests £16.42 per dwelling towards the cost of providing Community Learning Project, local to the development.

Youth Service

KCC has a statutory duty to provide Youth Services under section 507B of the Education Act 1996. This requires KCC, so far as reasonably practicable, to secure sufficient educational leisure-time activities and facilities to improve the well-being of young people aged 13 to 19 and certain persons aged 20 to 24.

To accommodate the increased demand on the Kent Youth Service, the County Council requests £65.50 per dwelling towards additional resources for the Youth Service locally.

Library Service

KCC is the statutory Library Authority. Under the Public Libraries and Museums Act 1964, the County Council has a statutory duty to provide 'a comprehensive and efficient service'. The Local Government Act 1972 also requires KCC to take proper care of its libraries and archives.

Borrower numbers are in excess of capacity, and bookstock in Northfleet items per 1000 population is below the County average of 1134 and both the England and total UK figures of 1399 and 1492, respectively.

To mitigate the impact of this development, the County Council will need to provide additional services, equipment, and stock to meet the additional demand generated by the people residing in these dwellings.

The County Council therefore requests £55.45 per household to address the direct impact of this development, and the additional services, equipment and stock will be made available locally at the local library or mobile library service, as and when the monies are received.

Adult Social Care

The impact of this proposal on the delivery of the County Council's services is assessed in Appendix 3c.

KCC is the Statutory Authority for Adult Social Care. The proposed development will result in additional demand upon Adult Social Care Services, including older persons and adults with learning / neurodevelopmental / physical disabilities and mental health conditions. Existing care capacity is fully allocated, with no spare capacity to meet additional demand arising from this and other new developments.

To mitigate the impact of this development, KCC Adult Social Care requires:

- A proportionate monetary contribution of £146.88 per household (as set out in Appendix 3c) towards specialist care accommodation, assistive technology systems and equipment to adapt homes, adapting community facilities, sensory facilities, and [Changing Places](#) locally.
- In June 2019, the Department for Levelling Up, Housing and Communities identified in guidance that the need to provide housing for older and disabled people is critical. Accessible and adaptable housing enables people to live more independently and safely, providing safe and convenient homes with suitable circulation space, bathrooms, and kitchens. Kent Adult Social Care requests these dwellings are built to Building Reg Part M4(2) standard (as a minimum) to ensure that they remain accessible throughout the lifetime of the occupants, meeting any changes in the occupant's requirements.

Waste

Kent County Council is the statutory Waste Disposal Authority for Kent, responsible for the safe disposal of all household waste, providing Household Waste Recycling Centres (HWRC) and Waste Transfer Stations (WTS). Each household produces an average of a quarter of a tonne of waste per year to be processed at HWRCs and half a tonne per year to be processed at WTS'. Existing HWRCs and WTS' are running at capacity and additional housing will create a significant burden on the manageability of waste in Kent.

A contribution of £129.20 per household is required towards the waste facilities at Ebbsfleet, to mitigate the impact arising from this development, and accommodate the increased waste throughput within the Borough.

The County Council previously responded to the Environmental Impact Assessment (EIA) Scoping Report on 8th September 2022 and considered that waste should be scoped into the Environmental Statement. This is due to the potential impact upon this service from the proposed development and the misconception that landfill capacity was the determining factor in their EIA concluding a negligible impact.

KCC is therefore pleased to see that waste features as a chapter within the Environmental Statement and is supported by a Waste Strategy in the appendices.

However, the focus remains solely on available landfill capacity in determining the impact of the proposed development on waste facilities. As stated in the County Council's EIA Scoping Report response, the consideration of landfill as the only final disposal option for waste in Kent is incorrect. KCC disposes of less than 2% of waste to landfill and this is not kerbside collected household waste. All household waste is diverted, either to an energy from waste facility or to multiple recycling facilities, where waste is recovered and treated as a resource for recycling or energy production. The Environmental Statement must have consideration of the capacity at these alternative final disposal facilities. The sole consideration of landfill as the final disposal option also conflicts with the Environmental Statement which states that *'space to hold bins for Mixed Dry Recyclables, Food and Residual waste streams'* will be provided.

Additionally, in order for waste from developments such as that proposed to reach these final disposal facilities, it must first be taken to a WTS for bulking. The whole of the Gravesham District is currently served by a single transfer station, which is already at capacity. The County Council considers that the provision of an additional 3,500 homes will place an unsustainable burden of demand upon KCC waste disposal services and therefore informed mitigations should be identified within the Environmental Statement / Waste Strategy.

KCC does not agree with the concluding statement of the Non-Technical Summary in paragraph 110 *'Considering the waste management infrastructure available capacity within the region, the impacts of the waste arising from the Proposed Development will be minimal and will not result in likely significant effects upon waste infrastructure once operational'*. KCC would therefore recommend that this sentence is revised.

Waste Management and Recycling Management Strategy

The County Council considers that paragraph 1.3 within the Strategy is misleading, as kerbside collected waste is not sent to landfill, it is sent to an Energy from Waste Facility. In addition, food waste is not composted but sent to an AD plant.

KCC notes that Table 1 Waste and Recycling Management Policies omits the [Kent Waste Disposal Strategy](#), a key document in setting out KCC's current position, identifying the future pressures and outlining how the County Council will maintain a sustainable waste management service.

In respect of paragraph 6.9, whilst KCC supports innovation, consideration of the contamination levels arising from use of a system such as this need to be further explored and demonstrated that this will not impact negatively on recycling rates.

Chapter 8 Waste Disposal is focused on available landfill capacity, which is not considered appropriate. Gravesham Borough Council as the Waste Collection Authority collects the household waste and brings it to the KCC WTS at Pepperhill for bulking before being transported to its final disposal outlet. For Kent, this does not include landfill.

The assessment in Paragraph 8.2 acknowledges *'that at least 75% of the total operational waste is considered to be MDR / recycling waste, that will be sent to household waste recycling facilities (for residential apartments)'*. KCC notes that kerbside collected household waste does not get sent directly to a Household Waste Recycling Facility as indicated, but is first sent to the KCC Pepperhill WTS for bulking before being transported to a Materials Recycling Facility (MRF) under Contract. The KCC Pepperhill WTS is at capacity and cannot sustainably accommodate the tonnages from the proposed development. The assessment does not consider the impact of significant volumes of mixed dry recyclables on the local waste infrastructure.

The anticipated residual waste arisings from the development are assessed against landfill void capacity, which the County Council notes is incorrect. After collection by Gravesham Borough Council and bulking at the KCC Pepperhill WTS, they are sent to the Allington Energy from Waste Plant. The impact of some 31,344m³ per annum of residual waste on the KCC Pepperhill WTS is not negligible as this facility is at capacity.

Broadband: Fibre to the premise/gigabit capable

KCC recommends that all developers work with a telecommunication partner or subcontractor in the early stages of planning to decide on the appropriate solution and the availability of the nearest connection point to high-speed broadband. Most major telecommunication providers are now offering next-generation access broadband connections free of charge to developers. The County Council notes that further details are available on their websites and would recommend that the Applicant has consideration of this matter.

Implementation

The County Council is of the view that the above contributions comply with the provisions of CIL Regulation 122 and are necessary to mitigate the impacts of the proposal on the provision of those services for which the County Council has a statutory responsibility. Accordingly, it is requested that the Local Planning Authority seek a S106 obligation with the developer/interested parties prior to the grant of planning permission. The obligation should also include provision for the reimbursement of the County Council's legal costs, surveyors' fees and expenses incurred in completing the agreement, and County monitoring fee of £500 for each trigger within the agreement. KCC would request that a draft copy of any S106 agreement or unilateral undertaking is shared at the earliest convenience prior to its finalisation.

KCC would request confirmation for when this application will be considered and that the County Council is provided with a draft copy of the Committee report prior to it being made publicly available. If the contributions requested are not considered to be fair, reasonable, and compliant with CIL Regulation 122, it is requested that the County Council is notified immediately and to allow at least 10 working days to provide such additional supplementary information as may be necessary to assist the decision-making process in advance of the Committee report being prepared and the application being determined.

Minerals and Waste

The County Council, as the relevant Mineral Planning Authority, strongly objects to the proposal on the grounds that it is contrary to national and local development plan policies on safeguarding and would undermine the adopted Mineral Strategy for Kent which relies heavily upon wharves and importation facilities as land-won resources are depleted. Robins Wharf is an important facility as it provides a sustainable means of importing the aggregate building materials needed to support economic growth and is well placed to serve Kent and London. The latter has a reported finely balanced aggregate mineral importation capacity (wharfage) and may well require imports from other areas (including Kent) to ensure the capital's growth is sustainably supported if it returns to the sales and consumption ratio seen in 2010 to 2018 (see paragraph 4.10 of the London Annual Monitoring Report 2019). It also provides facilities for concrete manufacture and coated asphalt products.

The wharf and its associated mineral based product facilities can operate in a largely unconstrained manner in the locality given the planning permissions it operates to, therefore taking full advantage of the River Thames as a means of achieving sustainable transportation of the bulk raw materials with great flexibility. This in turn enhances the safeguarded wharf to then provide aggregates and mineral based construction products to the immediate market efficiently. Loss of this importation facility would undermine both aggregate supply that is becoming more reliant on importation and adversely affect sustainable transport of such materials if greater reliance, through time, is placed on increased road transportation. Therefore, the proposal is contrary to the NPPF, as it does not accord with the need to safeguard existing sites for the bulk transport, handling and processing of minerals, the manufacture of concrete and associated products such as coated asphalt materials.

The adopted KMWLP 2020 in turn identifies Robins Wharf as such a site with its associated facilities that require to be safeguarded to allow a steady and adequate supply of aggregate materials to support sustainable development in Kent. In light of the economic importance of wharves to the county and the delivery of a sustainable minerals strategy, there is a presumption in planning policy that these sites are safeguarded. Any development that proposes the loss of such facilities needs to robustly demonstrate that it satisfies the exemption criteria of the safeguarding policies in the KMWLP. The application asserts a number of arguments to justify an exemption, but these are not considered sufficient to set aside the presumption to safeguard.

The Applicant asserts that the regenerative advantages of the proposal are of such a scale and importance in meeting the Gravesham Local Plan's objectives that they override the

presumption to safeguard the importation facility. The adopted Gravesham Local Plan not only has policies to safeguard the sustainable transport commercial importation sites (Robins Wharf is one such facility, see Policy CS07: Economy, Employment and Skills, paragraph 5.1.37 and Policy CS11: Transport). Moreover, the Northfleet Embankment and Swanscombe Peninsula East Opportunity Area delineates Key Sites where the focus of regenerative development of this scale would be more appropriately located. Therefore, to deliver this regenerative development would needlessly incur the loss of the safeguarded wharf and compromise sustainable transport objectives of the Gravesham Local Plan. The Applicant's proposal does not accord with the adopted Gravesham Local Plan policies and is a departure from its spatial objectives.

With regard to the Applicant's assertion that the loss of the mineral importation wharf is justified and that its capacity is not needed, it is the County Council's view that the Applicant has failed to satisfy either exemption criteria 6 or 7 of Policy DM 8: Safeguarding Minerals Management, Transportation, Production and Waste Management Facilities as the area of the proposal is outside the main areas identified for regeneration in the Local Plan. The need, therefore, to deliver it at the application site is not overriding (exemption criterion 6). Furthermore, the Applicant has used out-of-date monitoring data and failed to understand the importance of maintaining all mineral importation capacity, as this underpins the whole strategy of the adopted KMWLP in providing for a steady and adequate supply of aggregate minerals, as required by the NPPF.

The Applicant's assertion that sufficient available capacity to import aggregate minerals will continue to exist, even with the loss of Robins Wharf as this will not be needed (exemption criterion 7) as sufficient unused 'headroom' importation capacity exists, is a fundamentally misguided argument. Indications are that the available capacity 'head room' will increasingly be utilised even if overall aggregate mineral demand remains static, as the Kent land-won sector for the sharp sands and gravels is rapidly depleting. Moreover, any increase in overall demand will inevitably place additional strain on all available importation capacity, both in Kent and the proximate London area, where there is little if any mineral importation capacity headroom. Wharf sites are considered generally irreplaceable once lost, therefore it remains imperative to retain all importation capacity into the future. Neither exemption criterion (6) or (7) of the relevant safeguarding policy can be said to have been satisfied by the Applicant's submitted Mineral Infrastructure Assessment.

The County Council, as the relevant Mineral Planning Authority, is willing to maintain a dialogue with Gravesham Borough Council on the matter of mineral supply and importation and the safeguarding of importation and associated mineral products facilities in order to assist the Borough Council if this would be helpful.

KCC has provided detailed commentary on the application in Appendix 4.

Sustainable Urban Drainage Systems (SuDS)

The County Council, as Lead Local Flood Authority provided comments direct to Gravesham Borough Council on 28 November 2022 (Appendix 5).

Heritage Conservation

The County Council provided comments direct to Gravesham Borough Council on 14 December 2022 (Appendix 6).

Biodiversity

The County Council provided comments direct to Gravesham Borough Council on 7 December 2022. (Appendix 7).

The County Council will continue to work closely with Gravesham Borough Council to help to ensure the delivery of new housing and infrastructure in response to local needs. The County Council will welcome further engagement with Gravesham Borough Council and the Applicant on the matters raised in this response.

If you require any further information or clarification on any matter, please do not hesitate to contact me.

Yours sincerely,



Simon Jones

Corporate Director, Growth Environment and Transport

Enc.

Appendix 1: Local Highway Authority Detailed Response

Appendix 2: Extract of the Network Map

Appendix 3a: New School Land Costs Mk6 SEN

Appendix 3b: Communities Assessment (Master Nov 19)

Appendix 3c: Social Care Assessment (Master May 22)

Appendix 3d: Waste Assessment (Master May 22)

Appendix 4: Minerals and Waste Planning Authority Detailed Response

Appendix 5: Lead Local Flood Authority commentary - provided direct to the LPA on 28.11.2022

Appendix 6: KCC Heritage Conservation commentary – provided direct to the LPA on 14.12.2022

Appendix 7: KCC Biodiversity commentary - provided direct to the LPA on 07.12.2022

The site is in a sustainable location, with short walking and cycling distances to local bus stops and both local and international railway stations. The proposals include a dedicated Fastrack route through the site and walking, cycling and car club facilities, all of which will further assist in achieving a mode shift away from the private car. However, in order for KCC to provide a robust assessment of the proposals, further information is required.

A pre-application meeting took place with the applicant on 8th July 2022 and subsequent to that the applicant was sent a letter dated 19th July 2022 setting out the local highway authority's pre-application advice. In this letter it was requested that a Transport Strategy should be prepared and submitted with the application, to demonstrate how the transport elements will be delivered over time. Although a Transport Assessment (TA) has been submitted which has considered and assessed the transport impacts upon completion of the Development, a Transport Strategy is required as a live document and umbrella to the suite of other documents including the Framework Car Park Management Plan (CPMP), Framework Travel Plan (FTP), Framework Delivery and Servicing Plan (FDSP) and Framework Construction Traffic Management Plan (FCTMP). The Transport Strategy should carefully consider how the phasing of transport infrastructure (which is discussed in the Design and Access Statement (DAS)) would be delivered, which is important given the scale of the site and long build out programme of approximately nine years.

Detailed comments on the application documents relevant to transport issues are set out in turn in the subsequent paragraphs.

Transport Assessment

In paragraph 1.2 it should be noted that the site is nearer to Gravesend than Dartford, with it being four kilometres from Gravesend town centre.

Figure 2.2 only shows the 2 kilometre walk isochrones and not the 800 metre isochrones as well, which are helpful in illustrating what is accessible within a 10 minute walk. The 800 metre isochrones should also be provided.

Paragraph 2.13 refers to bus stops on Taunton Road. A description of the walking route between the site and the bus stops should be provided, include the crossing opportunities.

Paragraph 2.29 notes that accident data from Crashmap has been analysed and not data from Kent County Council (KCC). An analysis of the KCC data should be provided as part of a supplementary Transport Assessment.

Although not yet adopted, the applicant should consider the relevance of policies contained within the Gravesham Borough Council Regulation 18 Stage 2 Consultation Part 1: Local Plan Core Strategy Partial Review and Site Allocations and Part 2: Draft Development Management Policies documents. For each of the policy documents set out in Chapter 3, it should be demonstrated how the development proposals comply with the policies, rather than just list out the relevant policies.

A plan is required showing what is proposed at podium level. In particular, this should show the route of the proposed diversion of the A226 Galley Hill Road. The design of the diverted route will need to be assessed since it forms part of the site access arrangements. The diverted route under the podium should have a low-level verge to be maintained for emergency use by vehicle occupants and to maintain the design sight-lines on bends. A verge should be provided for an emergency walkway and it should be designed to the guidance and recommendations in the Department for Transport publication Inclusive Mobility. It is understood that this route also provides access for refuse collection at the stadium. How will this route accommodate the manoeuvres of refuse vehicles?

Figure 4.3 does not provide sufficient details of the proposals for the road layout. The changes proposed in paragraph 4.13, notably the realignment of the A226 and related junction alterations, as well as the proposed segregated Fastrack route should be shown on a plan. Further to this, what is the internal road hierarchy? What are the proposed primary route(s), secondary routes and potentially tertiary routes?

Paragraph 4.24 sets out the proposed six vehicular site access points. Although this is an outline planning application, means of access into and out of the Site from the highway network is being determined at this stage. It is therefore important that the proposals for each access point are clearly understood and assessed. As requested in the pre-application advice, site access plans (including changes to the highway) should be provided at an appropriate scale (1:500) including pedestrian and cycle access points, the highway boundary (which can be obtained by contacting highwaydefinitionsearches@kent.gov.uk), appropriate vehicle visibility splays, vehicle tracking, and appropriate pedestrian and cycle crossings. Vehicle tracking is particularly important given that the diverted A226 Galley Hill Road would be used by a significant proportion of goods vehicles associated with the existing industrial units in the local area. Vehicle tracking should demonstrate that the proposed amendments to the A226 Galley Hill Road can safely accommodate 16.5 metre Heavy Goods Vehicles. The appropriate access points should be tracked for a 12.2 metre electric bus but also checked for an 18 metre articulated bus, as has been the case for other developments. KCC will not generally accept lane widths of 3 metres. 3.6 metres is desirable and 4 metres is required where there are double turning lanes at junctions. Narrower lanes will cause safety issues for motorists with little margin for error, particularly where larger vehicles are involved. Is it intended that dedicated facilities for cyclists are provided at any of the site access points? Any cycle crossing points should be designed in line with LTN 1/20 and shown on the access plans.

An adoption plan should be provided where possible and a plan of the highway land proposed to be stopped up. As Galley Hill Road is an A class road, any changes to this highway should be designed to DMRB standards.

Paragraph 4.53 states one cycle parking space will be provided for each dwelling. Whilst this is in line with SPG4, EDC's Sustainable Travel Strategy requires one per bedroom, which may be more appropriate in this location and given the low parking provision.

Paragraph 5.25 states mode share for Ebbsfleet is 60%. This is incorrect.

Paragraph 6.8 states "*public transport model and associated variable demand model calculations will not be carried out for this task order as this assessment is not required by KCC*". To be clear, whilst it was agreed not to use the KTM for this purpose, it was requested that the PT element was assessed in a desk based assessment i.e calculate journey times using timetables and modelling results.

Paragraph 8.4 refers to a signal scheme proposal for junction 4 associated with Blue Lake. To confirm, the Blue Lake site does not have planning permission, nor does it have a live application.

Appendix J contains plans showing the proposals for the A226 Thames Way / B2175 Stonebridge Road and the A226 Galley Hill Road / Northfleet Industrial Estate junctions, at a scale of 1:1000 at A3. Break lines are shown where the road continues. However, this is not sufficient and the full road layout should be shown for the diverted section of the A226. A control / monitoring system such as UTMIC must be included in the detailed design proposals for all signal junctions. These plans should also be updated with the additional information requested above. The proposed speed limits should also be clarified. On the B2175 Stonebridge Road, the existing pedestrian crossing facility at the roundabout is proposed to be removed. This should instead be replaced with a signalised pedestrian crossing. What are the access proposals for the existing Plough / Golden Grill in this location? No plans have been submitted for the other site access junctions, but these are required.

A Stage 1 Road Safety Audit was requested as part of the pre-application advice. However, this is outstanding and should be submitted along with the Designers Response to determine the acceptability of the access proposals. Any departures from standards must be highlighted.

Further detail is required regarding the proposed Fastrack Route. Specifically, this includes the following points:

- What is the route for Fastrack across the site? How does this relate to the cross-section for the Bus Corridor shown in Figure 4.5?;
- How does the proposed segregated Fastrack route connect to the road network at either end of the segregated section? Plans showing the proposed junctions should be submitted (one of

which is noted as the Grove Road / B2175 Stonebridge Road junction), which should include Fastrack priority measures such as bus gates and green wave at signals;

- How does the mode share presented in Table 4.2 relate to the actual forecast of passenger numbers? Has this been based on 2011 or 2021 Census data?
- Where would the bus stops within the site be located (this should be shown on a plan) and what facilities would be provided at these bus stops? and
- How would the proposed segregated Fastrack route affect existing Fastrack journey times?

What are the proposals for commercial bus services? In addition to Fastrack, routes 3, 34, 306, 480 Sapphire, 490 Sapphire and X55 currently serve stops within the site. How are the bus stops known as Taunton Road impacted by the proposed diversion of the A226 Galley Hill Road?

Figure 4.4 shows the pedestrian access points. It does not show a pedestrian route connecting onto Grove Road and this should be reconsidered. The redevelopment of the site bordering the eastern side of Grove Road, along with associated pedestrian and segregated cycle upgrades to Grove Road, is uncertain. Therefore, since this site shares a boundary with Grove Road to the east, pedestrian and cycle improvements to Grove Road should be considered as part of the proposals.

How do the pedestrian routes shown in figure 4.4 relate to the proposed diversion of the Public Right of Ways referred to in paragraph 4.27, including KCC's ambition to divert the English Coastal Path through the site upon completion of the development? PROW NU1 and National Trail, the England Coast Path will be affected, and further information is required. Please see separate comments from the PROW team.

Figure 4.6 shows the cycle access points. Similarly to pedestrians, it does not show a cycle route connecting onto Grove Road. Indeed, whilst several north-south cycle routes are shown, there is a lack of east-west cycle routes shown on figure 4.6. There is likely to be an existing demand for cyclists travelling from the B2175 Stonebridge Road which should be accommodated. 3 metre shared footway / cycleways as referenced in paragraph 4.31 and shown in Figure 4.5 are not acceptable. This also applies to the realigned A226 Galley Hill Road which is proposed to provide facilities for cyclists. Cycleways should be segregated from footways to provide high quality and attractive routes for pedestrians and cyclists. This is made clear in LTN 1/20 which states that *"on urban streets, cyclists must be physically separated from pedestrians and should not share space with pedestrians."* A 0.5m verge is proposed, but KCC require a minimum of 1 metre in width to be a functional component of the public realm.

It is assumed that the cross sections shown in Figure 4.5 relate to the realigned A226 Galley Hill Road (the HGV Access Corridor) and the segregated Fastrack route (the Bus Corridor), but this should be made clear and further commentary will subsequently be provided.

The principle of a Mobility Hub is supported. The proposed location should be shown on a plan, since it is important for it to be conveniently located and accessible by a range of sustainable modes. It should include all of the features listed in paragraph 4.36 of the TA.

Table 4.2 presents the car ownership data from the 2011 Census for the local area. This supports the assertion that the existing levels of car ownership are low for flats and maisonettes. It is also acknowledged that with appropriate sustainable travel measures, including a car club and mobility hub, there is potential for a further reduction in car use at the site. With this in place, an overall residential parking provision of 0.5 spaces per unit may be acceptable.

Please provide further evidence to show how many car club vehicles are required, so these can be secured. The EDC Sustainable Travel Strategy states *"The aim should be for every resident to have access to at least two car club parking bays within 5 minutes walking radius"*.

For non-residential uses, the proposed car, EV, motorcycle and disabled parking provision for each land use should be set out against the relevant parking standard to allow the proposed provision to be assessed. The scope to reduce overall parking through shared provision can then be explored. Will any parking for the existing uses be retained? Does sufficient capacity exist on alternative modes to meet demand and ensure there are a choice of modes available as alternatives to the private car? The

Ebbsfleet United Football Stadium website currently directs drivers to park in Ebbsfleet International Car Park C. Do the proposals also include promoting the Station to park? Ebbsfleet International Car Parks are currently included in the Ebbsfleet Central application which is currently live (EDC/22/0168).

The applicant has indicated that their intention is to use the Kent Transport Model to assess the highway impacts of the proposals, which is supported. KCC looks forward to further discussions with the applicant regarding the model inputs and outputs. In the interim, some initial comments on Chapter 5 on Trip Generation and Chapter 6 on Traffic Assessment Methodology are given in the following paragraphs.

As set out in the pre-application advice, it was recommended that the traffic associated with the existing uses to be replaced by the Development was surveyed. This has not been undertaken and it has instead been decided not to discount the existing uses from the proposed development traffic. This methodology is acceptable.

Paragraph 5.8 states that Private Flats have been used to derive residential trip rates. However, the TRICS output in Appendix G shows that Mixed Private Housing trip rates have been used. The total vehicular residential trip rates presented in Table 5.4 are different from those in Appendix G. Please confirm the correct trip rates. Table 5.4 should also provide the unit (e.g., per dwelling or 100 sqm etc).

Why has the trip attraction for the stadium not been considered and why is it excluded from Table 5.4, when paragraph 6.28 states that the assessment will consider the stadium fully operational at maximum capacity of 8,000 spectators? The discrepancy should be clarified. Whilst the stadium is an existing use, the current capacity is 4,769 (of which 2,179 are seated), whilst the proposed capacity is stated to be an uplift to 8,000 seats in paragraph 4.3. The Design and Access Statement states that it could also hold major events of between 10,000 – 18,000 visitors. How often would major events take place? It is recommended that an Event Management Plan is submitted for review and secured by planning condition.

The two retail factory store surveys undertaken on a Sunday do not provide a robust basis on which to assess the weekday AM and PM peak hours, particularly since Sunday trading hours are different.

Whilst the principle of applying an internalisation factor to trip rates at a mixed use development is accepted, the factors set out in paragraph 5.18 should be supported by evidence to justify the reductions.

The mode shares are presented in Table 5.6 of the TA. For the residential development, 29% of trips as car driver appears too low, as does just 3% of trips by rail, given the convenience and attractiveness of commuting to London for work from the site. The vehicle occupancy and pedestrian mode shares look significantly high. Further evidence / justification is required in order for this to be accepted.

The assessment scenarios should also consider With and Without Ebbsfleet Central scenarios, since the Ebbsfleet Central site is located in proximity to the development site and the planning application has not yet been determined.

The traffic counts listed in paragraph 6.24 have not been provided for review and are required (Excel format would be appreciated). Plans should be provided (to scale) showing assumed geometry for the model inputs.

Paragraph 6.35 states that traffic has been distributed in accordance with existing turning movements. This is too simplistic for a development of this scale and is not acceptable. Distribution, including the use of 2011 / 2021 Census journey to work data can be discussed in more detail as part of the KTM work.

The ability of the railway network to accommodate the increase in demand should be explored and confirmed, assuming a worst-case scenario. This was requested during pre-application advice and has not been set out in the Transport Assessment.

Pedestrian and Cycle Audit

A desk-based audit of the existing walking and cycling routes has been undertaken from the site boundary to Ebbsfleet International Station, Northfleet Railway Station and Swanscombe Railway Station. A desk-based audit is not sufficient to provide an accurate assessment and a site visit should be undertaken instead.

It is unclear whether the audit assesses the existing situation or the future scenario with the development in place. For example, the proposals show the need to cross the B2175 Stonebridge Road to access Northfleet rail station. However, the site access proposals provided in Appendix J of the Transport Assessment do not show a pedestrian crossing facility on the B2175 Stonebridge Road to replace the existing crossing.

In terms of the routes considered, whilst the routes to the nearest rail stations are important, routes to the nearest town centres, primary and secondary schools should be assessed as well. This is particularly the case for schools since the proposals comprise approximately 3,500 residential units.

The audit states that segregation for cyclists along the route to Northfleet rail station could make this route more attractive to cyclists. It also states that pedestrian crossings on the route to Ebbsfleet station should be moved to the desire lines. Plans illustrating the exact location of these proposals should be submitted.

A description of the facilities at Northfleet Station for pedestrians and cyclists should be included in the audit / within paragraph 2.16 of the TA. Improvements may be required.

Framework Travel Plan

The FTP does not provide sufficient detail in respect of the proposed measures, monitoring and review mechanism. It should be expanded with further details provided on, but not limited to the following:

- The type of cycling parking which is proposed since residential and non-residential uses will have different requirements. Cycle parking should be high quality to ensure it will be safe and well-used. A proportion of cycle parking spaces should be designed for disabled / adapted cycles and bikes for hire should be included and costed within the FTP;
- Showers, lockers and changing facilities should be provided for use by the non-residential uses on the site;
- The Mobility Hub should be referred to in the FTP, since it could function as a focal point for the proposed travel planning measures;
- The targets should be considered alongside the trip generation set out in the TA, once it has been agreed;
- Why is the target only 5% reduction in car based trips? The standards approach is 10%.
- What remedial measures would be taken should the Travel Plan not achieve its targets?
- A proposal to establish a Transport Review Group, of which the Travel Plan Co-Ordinator would form part of as well other key stakeholders which should be identified;
- The review and reporting should be managed through the Transport Review Group;
- The monitoring mechanism should acknowledge that the development will be built in phases with the construction programme lasting over nine years, with first occupation taking place at the end of year 5 (according to the Construction Programme shown in figure 5.3 of the Construction and Demolition ES Chapter). The monitoring period will need to commence at occupation and then continue every six months for a period until at least five years after full occupation. The monitoring period in the FTP should be updated accordingly;
- An example travel survey which could be used as part of the Monitoring Programme should be provided. This should include site wide vehicle, pedestrian, cycle and public transport monitoring surveys, information on car club usage and parking surveys in the local area to confirm the site is not generating on street parking issues elsewhere;
- Details of the on-site car club should be included in the Travel Plan, including the number of spaces to be provided; and
- An adult annual Thameside bus ticket should be provided for each resident at the development and for each member of staff employed at the non-residential uses. Alternatively, the same cost may be distributed in the form of KCCs MAAS equivalent credits, if this is available at the time.

The FTP would form the framework for the development of a Side Wide Travel Plan as the development is built out.

Framework Construction Traffic Management Plan

The construction programme in Table 3.1 shows that it has a construction period over at least nine years, which contradicts the 6-7 year duration referenced in paragraph 3.2.

The proposed HGV routes shown on Figure 4.1 are supported. HGV's associated with construction should be restricted to the identified routes.

Paragraph 4.6 refers to access points for vehicles and pedestrians. Where will these be located for phase one and phase two? Paragraph 5.1 notes that a limited amount of parking will be provided, but how much and where will it be located? A figure showing the construction routes and access points into the site would be helpful. Access to existing businesses and properties should be maintained.

Paragraph 5.71 and Figure 5.14 of the Demolition and Construction ES Chapter contain an estimate of HGV numbers, which could be as high as 128 HGV movements per day. The estimated numbers should be included in the FCTMP.

No mention is made of the potential for the river to be used to transport materials during construction and therefore mitigate the potential impact on the local road network. Since the site has a section of river frontage, has use of the river been considered as part of the proposals? It appears that part of the existing jetty lies within the site, whilst part of it is not in the red line boundary. Confirmation should be provided as to whether the jetty is within the applicants control and could be used during construction.

What is the anticipated mode share for construction workers? Construction workers should be encouraged to travel by sustainable means as far as possible and a Construction Worker Travel Plan should form part of the Construction Traffic Management Plan.

Framework Delivery and Servicing Plan

The principles set out in the FDSP are supported. The FCSP should be reviewed as Reserved Matters Applications come forward for individual development plots.

Framework Car Park Management Plan

Further justification is required to support the proposed parking provision referenced in paragraph 1.4 and Table 1. This document should also set out the number of disabled, motorcycle and EV car parking spaces.

The number of potential permits issued to each residential unit should correspond to the number of spaces permissible under the adopted Car Parking Standards.

The FCPMP should consider how site users will be prevented from parking in Ebbsfleet rail station car park, particularly when events are held at the stadium.

The FCPMP should be reviewed as Reserved Matters Applications come forward for individual development plots.

Paragraph 3.6 states that *"car parking will be restricted along the internal roads at the site"* and that *"parking restrictions will prevent parking at all times along the Fastrack bus route"*. Gravesham Borough Council are the parking authority and will need to enforce parking restrictions on the adopted highway. Any areas that remain unadopted will need to be enforced privately.

The FCPMP should include a commitment to undertake surveys of parking on local roads (pre- and post-occupation), in co-ordination with the FTP. A plan should be provided for agreement, showing the extent of the area to be considered. Initiatives should be set out to demonstrate how the Applicant would reduce this impact, should an issue be highlighted. This may include a financial contribution towards the consultation for the introduction of parking controls.

Parameter Plans

Parameter plan drawing number NFH-UNS-MAST-DR-1014 shows the Highway Access proposals and parameter plan drawing number NFH-UNS-MAST-DR-1020 shows the Highway Proposals Overview. Neither plan identifies a dedicated segregated Fastrack route, which paragraph 4.20 of the TA states will be provided. The Fastrack route should be shown on a plan accordingly. Similarly, the two bus stops referred to in paragraph 4.20 of the TA should also be shown on the plans.

Design and Access Statement

Section 7.2 of the DAS concerns phasing of the road network. The provision of the realigned A226 Galley Road in the first phase during Years 0-2 is supported. The proposed junction alterations of the A226 Galley Hill Road / B2175 Stonebridge Road, A226 Galley Hill Road / Lower Road and Lower Road / Northfleet Industrial Estate junctions should also be delivered in this phase. The proposed closure of the realigned A226 Galley Hill Road in the second phase during Years 2-4 will not be supported until these works have been delivered. A stopping up order will be required for the existing section of the A226 Galley Road which will be diverted and this should form part of the programme and shown on a plan. Vehicle access to the existing industrial uses off Lower Road will need to be maintained.

Traffic and Transport ES Chapter

Paragraph 7.11 states that the ATC Surveys took place between 12th July 2022 to 25th July 2022 and the MCC surveys took place on Tuesday 12th July 2022. The applicant should confirm that the ATC's were undertaken before school holidays commenced at local schools.

Structures

It is assumed that the proposed tunnel will be offered for adoption and will therefore need to undergo technical approval by the structures team (as stated in pre-app). If it is not, then it will still need an element of approval due to its proximity to the adopted highway. There are 3 existing structures which look like they may be affected, dependent on the final junction layout details and additional ones which look to remain unaffected. These may also require technical approval if they are affected in any way. I note there was reference to basements and piling, if any of these works are within 3.66m of adoptable highway, they may also require approval as a highway structure. Depending on final levels, there may be retaining walls or wing walls on the tunnel approaches which may also need technical approval.

The applicant should contact the structures team as soon as they have a more advanced design so that KCC structures can begin the technical approval process and identify all the affected assets that may require approval and potentially identify items which can be altered to remove the need for approval.

Conclusion

In conclusion I would like to place a **holding objection** on the application until the above issues have been resolved. Should the application be determined before the issues have been resolved, the below conditions / S106 requests should be secured.

Suggested Conditions / Obligations

At this stage it is envisaged that the following conditions / obligations will be sought. There may be additional requirements once the further information set out in this letter has been provided.

- Site Access points to be provided and open for use prior to occupation of the site.
- Best endeavours to implement TRO's for the segregated Fastrack route, diverted section of the A226 and internal roads, prior to occupation, to prevent ad hoc parking. The cost of preparing and implementing the TRO's will be at the Applicants expense. Private parking enforcement will be required on all non-adopted roads.
- All signal junctions along the Fastrack route are required to have Fastrack priority. As an absolute minimum this comprises green wave and UTM technology.
- A segregated 6.75m Fastrack route, and segregated cycle route to be provided through the site between the B2175 Stonebridge Road / Grove Road and Lower Road. It should be open for use upon first occupation of the site.
- A diverted route for the A226 between Lower Road and the B2175 Stonebridge Road and should be open for use upon first occupation of the site.

- A signalised pedestrian crossing point on the B2175 Stonebridge Road to be open for use upon first occupation of the site.
- A contribution may be required towards Northfleet Rail Station improvements.
- Improvements to be undertaken to provide pedestrian facilities and a segregated cycleway on Grove Road prior to occupation of the 500th unit.
- Improvements / financial contribution secured through the S106 for improvements to the PROW network.
- A Mobility Hub to be provided at a central location within the site. As a minimum, this should contain: Electric car club vehicle with plug in charge point; electric bike hub with plug in charge point, bike hire, docking station & bicycles, bicycle stands and lockers, bicycle repair stand, bicycle pump, and an information terminal.
- A Site Wide Travel Plan is required to be submitted three months prior to first occupation of the site, based on the FTP. The Travel Plan should contain (as a minimum) site wide vehicle targets, a monitoring strategy, an action plan to be implemented to meet the targets, remedial measures to be implemented should the targets not be met, details of a transport fund to fund the remedial measures, and details of the Transport Review Group. Full Travel Plans for each individual use meeting the appropriate thresholds should be submitted to and agreed by the Council a minimum of three months prior to occupation of their associated use. These must be in accordance with the Site Wide Travel Plan.
- The Travel Plan must be monitored on a six monthly basis and needs to record the numbers of vehicles entering and leaving the site, with the results reported to the Transport Review Group within 3 months. The surveys should also record numbers of pedestrians, cyclists and public transport users. Monitoring must include on and offsite parking survey to capture any ad hoc parking and is to be paid for by the Applicant. The extent of the survey should be agreed with KCC and set out in the Full Travel Plan.
- A KCC Travel Plan monitoring fee of £1422 every five years is required and should be secured via the S106.
- A transport fund to be secured, to implement remedial measures, should the Travel Plan not achieve its targets or there are other issues identified that need to be rectified. Suggested contribution of between £300 and £2000 per unit.
- An annual Thameside bus ticket worth £820 for each resident and staff member who requests one / equivalent cost in KCC's MAAS equivalent scheme credits, if this is available, to be secured through the S106 and delivered upon occupation.
- A minimum of £50 per unit for cycle vouchers for the residential units, to be secured through the S106 and delivered upon occupation.
- A financial contribution will be required for new bus shelters at the Taunton Road bus stops, and Fastrack stops within the site, secured via the S106.
- A car club to be implemented on site with a minimum of three cars, with a minimum of one vehicle on site upon occupation. A number of the vehicles should be electric with associate charging facilities. One year's free membership and £50 driving credit should also be secured for the site users, to encourage take up.
- In line with KDG, an emergency or secondary vehicle access point must be available prior to the occupation of the 50th dwelling and connect to the highway of the primary access. A secondary access must be available prior to the occupation of the 300th dwelling.
- Pedestrian, cycle and public transport facilities to/from buildings / phases should be operational prior to their associated use.
- Vehicle, Disabled, Motorcycle, Cycle and Electric Vehicle parking provision set out in any subsequent RMAs to be based on KCC's parking standards at the time to ensure the most appropriate standards are implemented.
- A Car Park Management Plan to be submitted and implemented prior to first occupation.
- A Delivery and Servicing Plan to be submitted prior to first occupation.
- A Construction Traffic Management Plan will be required for future RMAs, based on the Framework CTMP which has already been submitted.
- An Event Management Plan to be submitted and implemented prior to first occupation of the stadium.

Initial Comments: Northfleet Harbourside Development

Application details

Outline permission with all matters except for the primary means of access is being sought for:

- Up to 3,500 residential units (Use Class C3);

The application form proposes:

	Market	Affordable	Total
1 Bedroom	1732 (Planning statement sets out that of these 157 are studio)	179	1911
2 Bedroom	1259	123	1382
3 Bedroom	158	49	207
4 Bedroom +	0	0	0
Total	3149	351	3,500

4 existing units of unknown bedroom size are to be demolished as part of the proposal, resulting in a net gain of 3,496 units.

- Up to 55,300 sqm commercial business and service (Use Class E);

The application form proposes:

Use class	Proposed floor space
E (Total)	55,000
E(a)	22,500
E(b)	9,500
E(c)	1,100
E(d)	1,200
E(e)	1,500
E(f)	1,200 (Planning statement states 1,500 and 1,200, could this be clarified)
E(g) (i and ii)	18,000

- A new multi-use stadium of up to 8,000 seats and comprising up to 15,000 sqm (application form and ES) (Use Class Sui Generis); planning statement states 18,000, could this be clarified. Capable of hosting events of up to 20,000 people.
- Up to 4,000 sqm for Local Community Use (Use Class F2);
- Up to 20,000 sqm (300 net additional rooms) for hotel use (Use Class C1).
- 2600 vehicle parking spaces (2150 net) (ES states maximum of 1,750 will be allocated to residential component)
- 2500 cycle spaces (ES assumes 3,500 for residential component and 709 spaces for non-residential – could this be clarified).

Presumption in favour of Sustainable Development

At the current time, the Council cannot demonstrate a 5-year housing land supply and is failing the Housing Delivery Test. As a result, the presumption in favour of sustainable development as set out in NPPF (2021) paragraph 11(d) applies (see NPPF footnote 8). In terms of decision-taking, paragraph 11 states:

11. Plans and decisions should apply a presumption in favour of sustainable development.

For **decision-taking** this means:

- (c) approving development proposals that accord with an up-to-date development plan without delay; or
- (d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
 - (i) the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed ; or
 - (ii) any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.

The policies within the Framework referred to in paragraph 11(d)(i) are set out in footnote 7 as those relating to habitats sites (and those sites listed in paragraph 181) and/or designated as Sites of Special Scientific Interest; land designated as Green Belt, Local Green Space, an Area of Outstanding Natural Beauty, a National Park (or within the Broads Authority) or defined as Heritage Coast; irreplaceable habitats; designated heritage assets (and other heritage assets of archaeological interest referred to in footnote 68 in chapter 16); and areas at risk of flooding or coastal change.

Whilst the above does not override the development plan as the starting point for decision taking, in applying the 'tilted balance' it will be necessary to make a planning judgement as to which policies are 'out-of-date' and the weight to be accorded which policies within the planning balance following relevant case law.

The application at present fails in respect of para 11(d)(i) on a number of grounds including impact of the development on habitats sites and Sites of Special Scientific Interest (SSSI) , as well as development of land for vulnerable uses not appropriate within Flood Zone 3. Insufficient evidence is currently provided to overcome these issues, this view is also reflected in the representations received from statutory consultees.

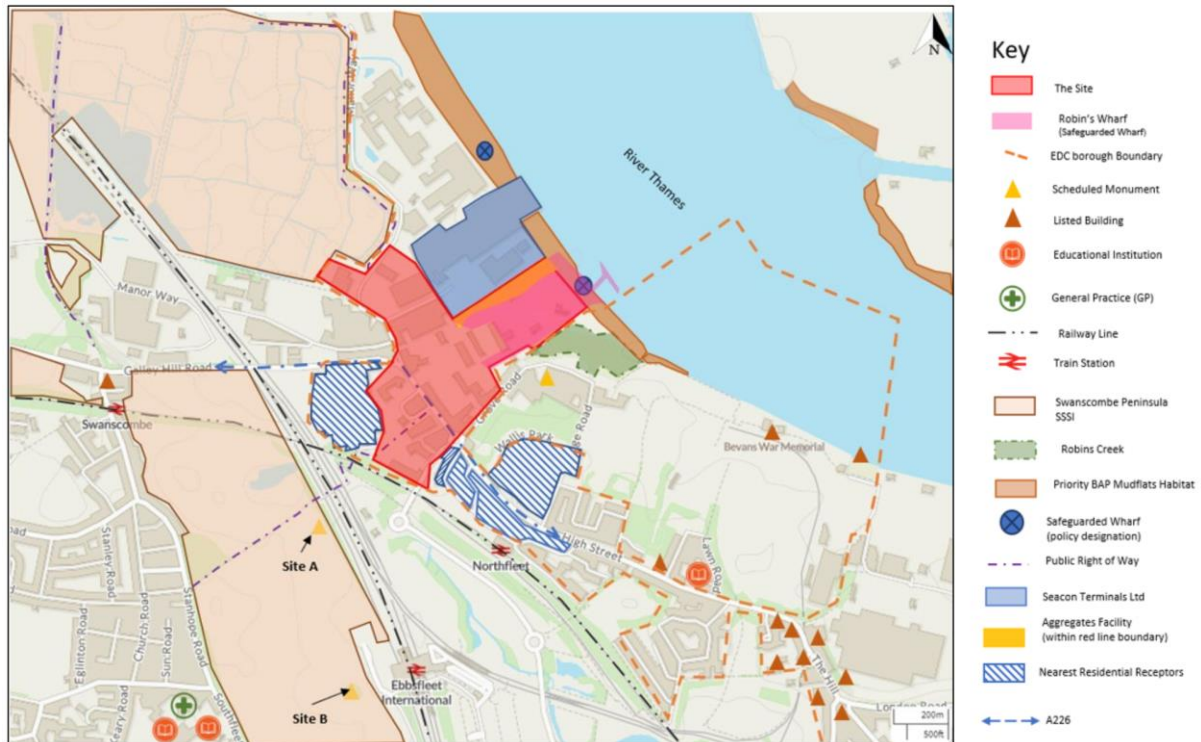
Marine Policy

The application site immediately abuts the River Thames, directly opposite the Port of Tilbury and in our view would have an impact on existing safeguarded wharves used by commercial shipping. The completed development could also be affected by marine related activity that remains in-situ. In addition to this, locating a high-density mixed-use development alongside the river has the potential to bring a greater number of people into contact with the River Thames. At present the application fails to provide sufficient evidence to demonstrate that the proposed development will safeguard existing wharves, or that alternative wharfage is readily available.

Site extent, layout and access

The layout of the site appears to have been constrained by the applicant working to the LPAs boundary and excluding land within the Ebbsfleet Development Corporation (EDC) Area in Gravesham and land within Dartford (apart from a small section of the A226 in Dartford needed for highways works). This has resulted in the proposed development being sandwiched between several industrial users, existing residential areas within Dartford and Gravesham, as well as the Swanscombe Peninsula SSSI and land within the EDC's/EA's ownership at Grove Road and Robin's Creek.

A plan taken from the ES (see below) sets out some of the surrounding and site context.



It should be noted that there is a live application currently being considered by EDC for Ebbsfleet Central (not shown on the above plan). Bellway are currently constructing residential development at Northfleet Embankment West (not shown on the above plan). Adjacent to Seacon is Britannia Refined Metals Ltd, part of the Glencore PLC (with an e-waste facility planning application currently being considered by KCC), with aggregate facilities run by Gill Aggregates and Cemex Northfleet towards the bottom end of Manor Way (not shown on the above plan), and WB Services UK Ltd (lifting and transportation) and CMP Thames Ltd (piling services) also located on Manor Way (not shown on above plan).

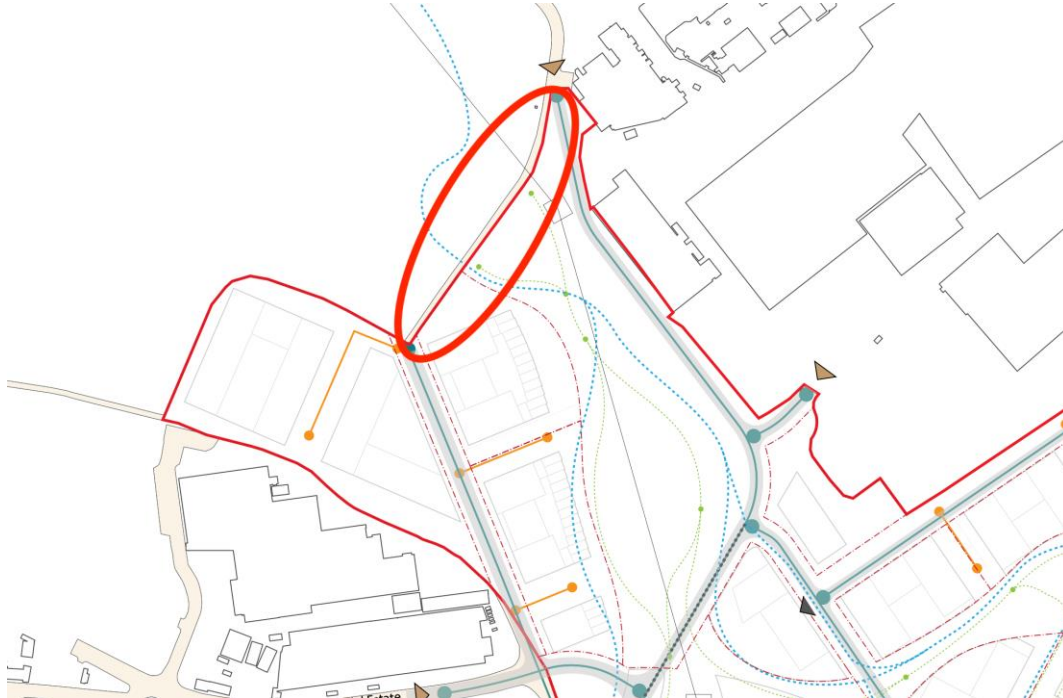
Whilst the plans are outline, it's difficult to see how a road to serve Britannia and other companies beyond Britannia could fit between the electricity pylon and Seacon's existing structures (see screenshot below).



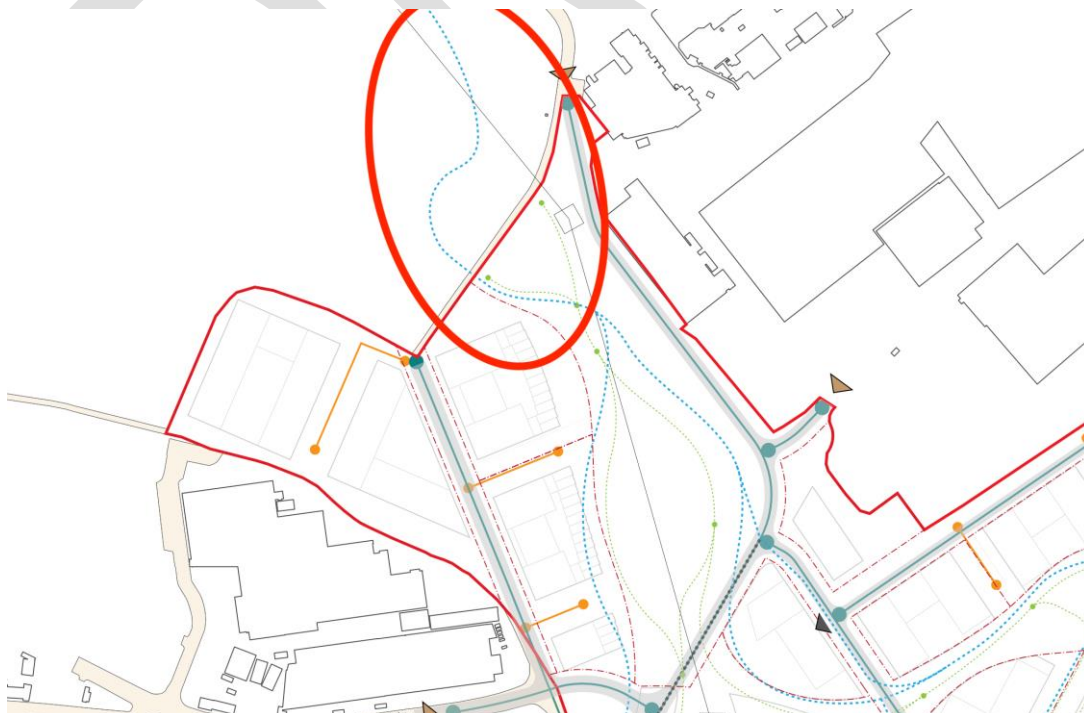
Seacon have two access points into their site, whilst provision has been made to serve their main access within this proposal, the other access adjacent to Britannia Refined Metals Ltd is omitted, without any consideration of Seacon's operational requirements. The plans as they currently stand also remove parking for Britannia Refined Metals Ltd employees and visitors, as well as HGV parking, this needs to be addressed (see screenshot below).



Whilst traffic is diverted from Lower Road, it is shown as remaining, it is unclear what happens to this section of lower road, outside of the redline. In its present form this would create a poor environment and act as a barrier to the cycling and pedestrian links being provided towards Swanscombe Peninsula.



Clarity also needs to be provided on how will the indicative cycle link outside of the red line will be delivered, there is also a query of how the development including the cycling links and the pedestrian paths link in with the King Charles III Coast Path (see screenshots of location and Coast Path below) https://www.nationaltrail.co.uk/en_GB/trails/england-coast-path-south-east/trail-information/

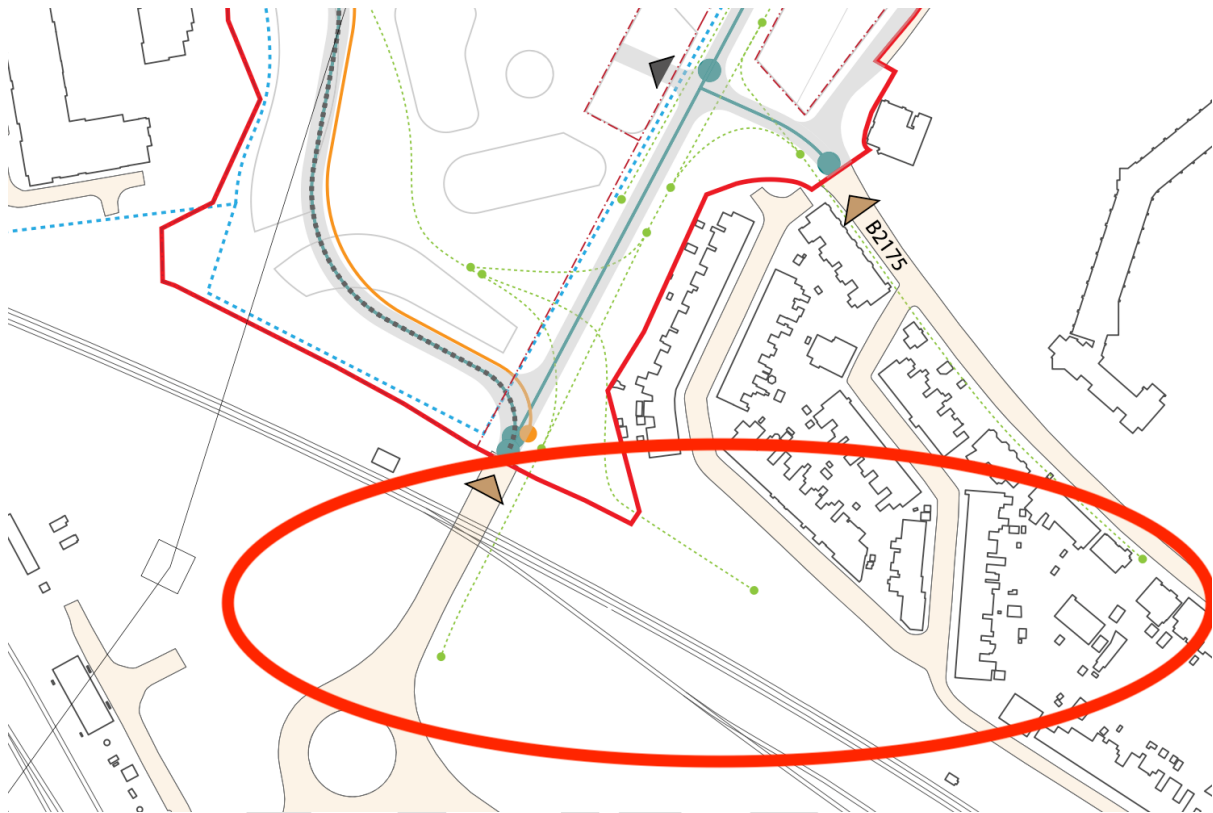




As part of Northfleet Embankment West, Bellway have committed to providing Fastrack access to the development via Grove Road. This bus service would also serve Northfleet Harbourside, should the development come forward. The road layout currently proposed, does not make adequate provision for a bus service to link to Grove Road from the proposed development. This needs to be reconsidered and the EDC need's to engaged regarding improving public transport, cycling and pedestrian access to and from Grove Road via land potentially in their ownership and within the applicant's redline boundary, see screenshot below. These improved pedestrians and cycling links also have the opportunity to improve the Coastal Path.



Further consideration also needs to be given to improving both pedestrian and cycling links to Ebbsfleet Railway Station, Northfleet Railway Station, Northfleet High Street/The Hill, at present only indicative pedestrian routes are shown and these would be inadequate (see below).



Quantum of development and phasing

The illustrative masterplan and phasing plan (see below), together with the 3d massing model, show how the development would potentially come forward, if brought forward in its entirety as per the maximum parameters sought.

Phase 1 is intended to be built out whilst businesses in Phase 2 remain operational. The ES advises that existing wharf areas in Phase 1 will be utilised as a construction compound during the construction of that phase. However, Phase 1 is not adjacent to the river and whilst businesses remain operational in the area designated as Phase 2, it will not be realistically possible for Robins Wharf which is not currently within the ownership of the applicant to be used for construction purposes. As such this discrepancy needs to be reconciled.

In addition to this, the proposed development is anticipated to take approximately eight years to build out. With Phase 1 including Plots 1, 8, 15-19 and Phase 2 Plots 9-14 coming forward once Phase 1 and all the required infrastructure and highways are completed. Given the potential need for Compulsory Purchase Orders to assemble the site for development and the scheme not being viable in its present form due to build costs and ambitious residential values (which have not been demonstrated in this area), it is difficult to see how such a timeline can be met.

In addition to this no clarity is provided regarding how businesses within Phase 2 can remain operational, whilst Phase 1 is constructed and occupied. With the amenity (noise, air quality, ground contamination) impacts upon existing and new residential occupiers not being sufficiently assessed. The 'agent of change' principle also need to be considered in relation to the businesses that will remain adjacent to the site. Whilst it is appreciated that this planning application is for Outline Planning Permission with All Matters Reserved in order to establish the principle of development. Detailed consideration still needs to be given to the proposed uses and amount of development at this stage, with sufficient information needing to be provided to address these issues.

Whilst the application provides an indication of what the proposal may deliver in its maximum parameter form, no indication is provided regarding what the minimum quantum of development maybe, nor what the minimum building heights maybe. Nor is information provided regarding how the viability of the stadium and football club would be impacted, should the maximum development not come forward as proposed. This should be considered further.

Figure 14 Illustrative Landscape Masterplan





An indicative 3d massing model setting out the maximum parameters is shown below:



In terms of the Robins Creek area, the red line boundary excludes a narrow strip of land immediately abutting the Creek itself; a knob of land at the mouth of the former creek now behind the flood defences; and the existing wharf that protrudes into the river just outside the red line boundary. Given these areas provide part of the setting for the development and the future of the existing wharf or replacement would be difficult to secure there is a high risk that they could become 'space left over after planning' detrimental to the future regeneration of the area. This needs to be addressed alongside access to Grove Road for pedestrians, cycling and public transport.

It is also understood that the red line boundary has been drawn to exclude the existing flood defences but that a landward margin of 19 metres has been included within which an improved defence consistent with Thames Estuary 2100 objectives could be constructed.

Whilst the applicant has indicated a commitment to provide a new defence within this margin, it is not clear when or how this would be delivered or by whom. Also, if the existing flood defence is excluded from within the red line boundary (it being irrelevant whether the applicant owns them or not provided notice is served) any planning permission would not apply to any necessary works to either remove them or to tie in the proposed new defence.

This may also have implications for any s.106 agreement given any planning obligation related to upgrading of the defences would need to be linked to the permission with the owner of the defences being a signatory. This may also have implications for any CPO (if required) given the defences lie beyond the red line boundary.

The Environment Agency have provided substantive comments on flood risk (as well as other matters), and it is vital that these matters are addressed adequately.

Implicit to the proposal and the way in which the Environmental Statement (ES) has been put together, is that the development is intended to deliver a new stadium for Ebbsfleet United FC (8,000 all seater) and supporting development to secure the club's future and long-term progression into the football league. This is set out in the ES at Chapter 3: Alternatives and Design Evolution as follows:

3.30 Ebbsfleet United is an intrinsic and important part of both the community and identity of the local area. The club has ambitions to be promoted to higher leagues. The development of a new southern stand on the Stonebridge Road elevation in 2012 provided new facilities for the club as well as partially covered seating, bringing the current capacity of the stadium to 4,769 (of which 2,179 are seated).

3.31 The club is currently supported by private finance from its owners which helps to maintain the current position, however this model has risks around sustainability and long-term financial security common among football clubs in the UK pyramid. The size of the stadium also limits other sporting and non-sporting events that can take place as a result of the capacity and/or supporting facilities on site or within the vicinity (e.g. hotel). Consequently, for the club to be viable in the long-term there is the need to improve the available facilities to enable growth by providing a 365 day per year community event site and providing important diversified revenue to the community football club.

3.32 The Proposed Development includes a new stadium with a capacity of approximately 8,000 supporters (both seated and standing options) with associated ancillary retailing outlets, function space, and training / changing facilities. This size of stadium will allow for the growth needed to become financially stable through an increased supporter base and lettings of the stadium for other uses such as concerts

and tournaments. The increased capacity will also ensure governing body ground grading compliance for promotion to EFL Champion level as a minimum should it be required in future years. This investment will provide the club with a sustainable and self-sufficient future whilst also allowing for a reinvestment of funds and much needed facilities and space into the wider community of Northfleet.

3.33 This level of investment to deliver a step-change in the quality of the stadium cannot be achieved through the introduction of supporting town centre uses (e.g. hotel, retail and food & beverage) alongside residential development of scale commensurate with that proposed. Not only does this level of development allow for the funding of the new stadium, but it also introduces a critical mass that will support the non-football functions of the stadium.

3.34 The 'No Development' option would therefore result in the loss of the above-mentioned opportunities to improve the existing community function that the club facilitates, to improve the club's financial viability and to develop the non-football function of the stadium.

This rationale is also used to justify the level of retail provision in the Retail and Leisure Statement whereby it is contended that, in terms of the application of the sequential test, consideration has only been given to alternative sites that could accommodate the development as a whole – i.e.

5.32 Further, given that the primary purpose of the proposed retail and leisure floorspace is to support the viability of the new football stadium uses at the site, it would not be appropriate to disaggregate this element from the rest of the development. Although there is a need to demonstrate flexibility, disaggregating the retail element across the Application Site and either of the Ebbsfleet sites highlighted above would significantly undermine the role of the retail helping to support the viability and ongoing use of the stadium. Taking this into account, we conclude that the Ebbsfleet Valley Strategic Site as a whole can be dismissed as a sequentially preferable site.

5.33 Although not an allocated centre, it is acknowledged that Bluewater Shopping Centre does fall within the retail hierarchy for Dartford Borough. However, we note that Bluewater would not be large enough to accommodate the Proposed Development in its entirety. Further, as would be the case with the Ebbsfleet Valley Strategic Site, disaggregating the retail element across the Application Site and Bluewater Shopping Centre would significantly undermine the role of the retail helping to support the viability and ongoing use of the stadium. It can therefore be dismissed as a sequential site for the purposes of this assessment.

However, whilst the application is accompanied by a financial appraisal, there does not appear to be much information on how the proposed development would actually achieve any of the above objectives in terms of providing the necessary facilities for the club to operate at up to EFL Champion level; allow for the funding of the new stadium; or for the club to be viable in the long-term, sustainable and self-sufficient moving forward.

For example, there is no outline business plan for the club that relates to the above to show that this level and form of development is required to achieve these objectives, how this relates to financing capital improvements and the future revenue expenditure of the club. It would be helpful, therefore, if the applicant could provide a detailed statement on this so the Council can properly evaluate the proposal and understand how the business model would

work. Consideration should also be given in this respect to any implications that might arise should only the first phase be built out rather than the whole development.

This also relates to the points made above in relation to flood risk and the upgrading of the flood defences, given the 19 metre zone lies within the phase 2 area. If Phase 2 did not come forward, what would be the mechanism to ensure delivery of the upgraded defences given it is necessary under national policy for the applicant to show that the development would be safe over its lifetime? Furthermore, consideration needs to be given to if the residential elements of Phase 1 can be constructed without the flood defences being constructed in the first instance.

The application site lies within the Northfleet Embankment and Swanscombe Peninsula East Opportunity Area within the adopted Gravesham Local Plan Core Strategy (2014). The south-eastern part of the site is shown as forming part of sub-area 1.3. Whilst this part of the sub-area does not constitute a 'key site', development potential is identified subject to a number of constraints set out within the supporting text.

Policy CS03 at paragraph 4.4.31 supports the regeneration of the Grove Road and Lower Ebbsfleet Area (i.e. sub-area 1.3) for residential and employment uses, taking into account ground conditions and existing uses. The principle that redevelopment of this part of the application site might occur is therefore accepted.

However, the north-western part of the site includes existing industrial development forming part of sub-area 1.2 where the policy stance is different. The supporting text to policy CS03 at paragraph 4.4.5 anticipates that this area will remain in active employment uses over the plan period, where the retention and expansion of industrial and port related employment will be supported. This approach is embedded in policy CS03 at paragraph 4.4.30.

Because of this, the proposal has been advertised as a departure as it does not fully accord with the provisions of the Development Plan under policy CS03.

The relationship of the proposal to the delivery of development at Ebbsfleet is also important given there is a long-standing policy aspiration to deliver a high-density mixed-use development adjacent to the International and Domestic Station enshrined in both the Gravesham and Dartford local plans.

This strategy derives from Government policy that was contained in now revoked RPG9A: The Thames Gateway Planning Framework (1995) and South East Plan (2009) and formed part of the original rationale for choosing Ebbsfleet as the preferred location for an intermediate station on the Channel Tunnel Rail Link (now HS1) in August 1994. This was connected to the release of Eastern Quarry from the Green Belt largely for housing and the original grant of outline planning permission for associated development at Ebbsfleet in 2002.

Whilst the original plans for Central Ebbsfleet have not come to fruition and it has been necessary to revisit the vision due to changed circumstances, Government commitment to delivery was reinforced by the creation of the Ebbsfleet Development Corporation in 2015. This is notwithstanding the designation of large parts of the Ebbsfleet Valley as an SSSI in the interim.

A key question in terms of whether the proposed development of Northfleet Harbourside complies with policy 'in the round' therefore is whether it complements development at Ebbsfleet Central and is capable of working with it or potentially undermines its delivery as part of the strategic vision for the wider area.

This is clearly a very complex application, the following are some of the matters that need to be addressed. No specific view or opinion is provided here on these and responses from key stakeholders will be important in terms of how they are addressed. The following list should not be taken as exhaustive as other issues may arise as a result of consultation and as negotiations with the applicant progress.

- **Transport impact** – National Highways and KCC will no doubt provide further detailed comments once the transport work has been completed to their satisfaction. This aside, transport impacts will need to be considered alone and in combination with other developments in the area, including proposed interventions/improvements on site and within Ebbsfleet Valley. In considering this aspect, public and private parking provision; adequacy of public transport in the form of rail and bus infrastructure; and the ability to promote active travel will be important.

With specific reference to parking, it is intended to provide 950 spaces to service the stadium and commercial uses and 1,750 spaces to service the up to 3,500 residential units. The indicative breakdown of the residential units by size and plot is as follows:

TABLE 3.3: INDICATIVE UNIT MIX BY PLOT:

	PLOT 5	PLOT 6	PLOT 7	PLOT 8	PLOT 9	PLOT 10	PLOT 11	PLOT 12	PLOT 13	PLOT 14	PLOT 15	PLOT 16	PLOT 17	PLOT 18	PLOT 19
Studio	9	2	4	6	8	11	10	33	10	11	3	8	14	11	17
One Bed	105	23	45	64	91	127	109	371	113	123	30	84	155	126	188
Two Bed	84	17	36	49	73	100	86	292	90	97	23	65	122	100	148
Three Bed	12	3	5	8	11	15	13	44	13	14	4	10	18	15	22
Total	210	45	90	127	183	253	218	740	226	245	60	167	309	252	375

The distribution of plots is shown on the Parameter Plans as follows:



Appendix N to the Transport Assessment sets out how residential parking will be allocated on a first come first serve basis to the residential units through a permit system, with one permit associated specifically to each parking space. Obtaining a permit will form part of the tenant's lease or purchase. The proposals are envisaged to provide one permit for each of the two or more bedroom units, whilst the remaining 1 bedroom units will not have access to a parking space.

In all, the indicative figures in the Planning Statement show up to some 1,589 two and three bed units and 1,911 studio and one bed units being delivered, competing for the 1,750 spaces available on a first come first serve basis. This equates to 0.5 spaces per unit. If 1,589 spaces were taken by the two and three bed units at 1 space per unit, this would only leave 161 spaces for the 1,911 studio and one bed flats at 0.08 spaces per unit.

Whilst this may be an extreme representation of what would actually occur, it does raise an issue as to whether this level of parking provision would be adequate to serve this number of studio and one bed units. This is particularly the case as quite a few of these units are some distance from Northfleet and Ebbsfleet Stations in plots 11 and 12 (523 units) and 17,18, and 19 (511 units).

It is also worth considering that if parking spaces are allocated on a first come first serve basis across the whole development, then the potential exists both for parking spaces to be quite remote from the actual unit of accommodation and/or units of accommodation on a particular plot could have restricted access to parking even if they are quite remote from the stations – albeit they may still have access to buses or have active travel options.

In addition to the above, what is unclear from the Parameter Plans and other information provided is how residential parking spaces would be distributed around the development relative to the residential unit types set out in Table 3.3 above. It would be useful therefore if this information could be provided on a similar plot by plot basis.

In terms of access and highways impact, whilst the application provides information on the main access points at the edges of the development and an indicative future highway layout within it, there appears to be little on access points from that network into parking or servicing areas from the future highway network other than what is shown at section 2.0 of the Design Code.

However, would not the access to the 01 Marketplace parking area also require some form of junction arrangement and possibly signalised control onto the A226 in tunnel?

It may be useful to understand what is proposed here and the implications in terms of how it may impact on the way the network functions. It would also be useful if further information could be provided on the number of spaces to be provided in the 01 Marketplace and 02 Stadium parking areas and whether this accounts for the full 950 non-residential spaces.

In addition, are these also intended to act as visitor spaces for people visiting the residential areas or will additional spaces be provided elsewhere distributed around the site?

If the intention is to promote cycling as an alternative to the car, then thought needs to be given to off-site improvements to the cycling network and increased cycle parking provision at key destinations, as set out earlier. Thought might also be given to improvements to the existing public rights of way network in this respect (particularly NU2/DS17) which would provide a good link between the development under the railway arch westwards to Swanscombe thus avoiding the heavily trafficked Galley Hill Road. Consideration should also be given to the current closure of Galley Hill Road and potential impacts on the construction and operational phases of the proposed development, should the closure continue for a prolonged period.

Adequacy of electric vehicle charging for both residents, businesses and visitors will need to be considered in due course and any electric supply capacity issues that might arise. Of the 1,750 residential spaces, it is intended that 175 would be fitted with 7kw active charging and the remainder with passive provision to facilitate retrofitting. On the latter, an indication of what mechanism will be put in place to facilitate such retrofitting would be useful, particularly if spaces are not allocated and individual occupiers of residential units would be unlikely to pay for installation under such circumstances. Consideration also needs to be given to more rapid charging in the commercial car parks, which would in any event need to meet standards set out in Part S of Building Regulations.

Thought should also be given to the potential to promote and use waterborne transport during both the construction and operational phases.

An issue that needs to be addressed in relation to the proposal is how the new highway layout would perform when there are incidents on the A2 and/or Dartford Crossing because flows transfer to the A226 and other local roads. In addition, the development if permitted could potentially be built out at the same time as Ebbsfleet Central and the Lower Thames Crossing and the implications of this need to be understood. For example, would it be possible to provide an indication of what temporary arrangements could be put in place to divert the A226 and local highway links during construction?

Appendix N (at 3.6 to 3.7) to the Transport Assessment sets out some basic principles of a Car Parking Management Plan (CPMP) which states that car parking will be restricted along internal roads and that this will include Fastrack routes so that services continue to operate smoothly. An appointed estate management company and/or housing providers will be responsible for enforcing the CPMP and will have powers to penalise any unauthorised parking. However, it is not clear at this stage what internal roads will fall under the management company's jurisdiction and what roads will fall under the local highway authority/borough council in terms of enforcement. This may have implications in terms of Traffic Regulation Orders etc. that need to be resolved.

- **Design** - whether the scale, form and massing of the development is appropriate in this context will be an important issue. There are a number of tall buildings proposed

(20 storeys/71.42m AOD; 15 storey/55.42m AOD; and 10 storey/39.42m AOD) which are likely to be extremely prominent over a wide area given the ground level in Northfleet High Street is only around 25/30m AOD. It is also important to understand what consideration has been given to how the proposed development would integrate with its surroundings to create a cohesive sense of place, given adjoining developed areas have a very different character and are significantly smaller in scale.

An associated issue here is the respective roles of Northfleet Harbourside and Ebbsfleet Central within the spatial hierarchy being created. If the latter is intended to be the main hub located around the International and Domestic Station, this be reflected in its built form compared to Northfleet Harbourside.

Whilst Ebbsfleet Central and Northfleet Harbourside lie in close proximity to each other, they are physically separate developments due to severance caused by the North Kent Line embankment – what are the implications of this in terms of design and how they might function and be viewed in tandem?

At a more detailed level, what consideration has been given to the way in which the stadium would function and the need to manage incidents? This is important because NPPF paragraph 130(f) requires that planning policies and decisions require developments to be safe, inclusive and accessible.

Presumably, any new stadium would need to meet the standards set out in the Green Guide (Guide to Safety in Sports Grounds) – does the application provide sufficient information to determine whether those standards can reasonably be met for an 8,000 capacity stadium, particularly in terms of whether adequate arrangements can be made to evacuate the ground to places of safety?

This also relates to the emergency access arrangements set out in Figure 4.1 of Appendix O to the Transport Assessment, which show the main emergency access along the diverted A226 in tunnel. Does this provide sufficient detail on how the stadium could be accessed in an emergency situation at the outline stage, given it may also be necessary to access it via the podium level?

Whilst the applicant has provided some information on the stadium design within the Design and Access Statement (vol 3 at 5.2 onwards) and in the Design Code (Part D page 41 onwards), it may be useful for the applicant to obtain expert advice of the Sports Ground Safety Authority on the above points given it has responsibilities in relation to league grounds (<https://sgsa.org.uk/>)

It would also be useful if the applicant could provide some clarification on the pitch size shown in the Design Code at 5.2.2 given this shows an area measuring 66 x 111m. Whilst this falls within required dimensions for a league standard pitch, does it include sufficient area for side and end safety margins? Given any planning outline permission granted would be on the basis of Parameter Plans and Design Code, it's important that the basics are right.

A high voltage power line currently crosses the application site supported by pylons within the current ground car park and to the south of the railway embankment. It is unclear from the application whether or not this needs to be raised on higher pylons to achieve a minimum vertical clearance over built development. It would be useful

therefore to have additional information on this and a section along the run of the power lines showing existing and proposed development. An indication of how the presence of power lines running across the site would be dealt with during construction would also be useful.

- **Flood Risk and drainage** – How, when and by whom tidal flood defences will be upgraded has been raised as an issue above. However, fluvial flood risk from the Ebbsfleet Stream is also an issue and how surface water will be sustainably drained. The North Kent Railway embankment has severed the Ebbsfleet Valley since about 1849, with the stream to the north now largely enclosed in culvert since the 1960s. Whilst we defer to the Environment Agency (EA) on this, assessment of any risk of flooding from the stream needs to have regard to latest modelling and be consistent with any agreed approach toward Central Ebbsfleet and the wider area. Also, whilst not a local plan policy requirement, it is also likely that the possibility of taking the stream out of culvert to create SUDS features as part of the overall design might also be raised.
- **Impact on natural environment and biodiversity net gain** – The application site immediately abuts the Swanscombe Peninsula SSSI, where there may be impacts during construction and operational phases. Noise, light and increased recreational use of the peninsula may impact on the SSSI, remembering that the land is private with access only available over the PROW network. Whilst we defer to Natural England who have provided comments on the applications, any potential implications for the North Kent Marshes protected areas in terms of increased visitor numbers, the need for HRA and possible mitigation needs to be considered. Consideration also needs to be given as to how bio-diversity net gain is to be achieved in accordance with national policy as appropriate, including on site given the comments made above regarding the Ebbsfleet Stream and any controls over this exercised by the Environment Agency. In terms of impacts on the water environment, consideration will also need to be given to the Water Framework Directive and any objectives set out in the Thames River Basin Management Plan.
- **Impact on minerals wharf and access to river** -Consideration of this aspect needs to be given in the light of both Kent MWLP and Gravesham local plan policy in relation to safeguarded wharves. The issue of potential access and use of the river is raised above, irrespective of whether or not the minerals wharf remains in-situ. Consideration also needs to be given as to how the development would relate to the western edge of Robins Creek and potential development that may take place there, including any potential environmental enhancements to the Creek itself as per local plan policy CS03 at paragraph 4.4.33 and references in the supporting text at 4.4.8 that recognise the possibility of this once again being made navigable – although not in itself a policy requirement.
- **Retail/leisure** – The applicant has submitted a retail impact assessment, to demonstrate compliance with both the NPPF sequential and impact tests and local plan policy CS08. A similar report has been submitted to the EDC in relation to Ebbsfleet Central. However, the two reports have been prepared on a slightly different basis. Given both the Dartford and Gravesham local plans support the delivery of retail and leisure at Ebbsfleet Central as part of the mixed-use regeneration of the area, the principle of such development there should be taken as

a given subject to assessment through the application process. The combined impact on other town centres of development at Ebbsfleet Central and Northfleet Harbourside therefore needs to be assessed, having regard to all other commitments. However, the Northfleet Harbourside application appears to ignore the extant Bluewater permission for a significant extension on the basis the remaining floorspace may not be delivered. In the interests of robustness, this should also be included in the assessment.

- **Noise and air quality** – Noise impacts appear to have been assessed in terms of the operation of the football stadium but it remains unclear what other activities will take place in this arena, at what times, frequency and their scale/impact. Given the proposal relies on the stadium being multifunctional, it is suggested that this needs to be better understood so that impacts can be assessed on a reasonable worst-case basis. Whilst the impact of adjoining commercial uses on the development will be a consideration, the NPPF agent of change principle will also apply should the introduction of sensitive receptors lead to potential complaint that may restrict their lawful operation. This would include any potential implications for commercial uses across the river (Port of Tilbury) and not just those immediately adjoining. In terms of air quality, the site lies within the Gravesham Northfleet Industrial AQMA and adjoins the Dartford A226 AQMA. The proposal clearly has the potential to impact on both either positively or negatively. Given part of the proposal effectively places in the A226 in tunnel under the development have the implications of this been taken into consideration and how any fumes (or smoke in the event of a fire) would be dispersed? Presumably the design would need to accommodate ventilation arrangements to deal with this, including room for associated plant. Sufficient details should be provided to allow the LPA to consider the impact of such structures and plant upon air quality and noise.
- **Heritage and archaeology** – Both Historic England and KCC have provided comment on this area, these comments should be considered by the applicant and addressed. For information, the area would at one time have formed part of the marshland at the confluence of the Ebbsfleet with the River Thames, which was crossed by the London Road on embankment that formed a flood defence along with the original Stonebridge and associated sluice. An ancient watermill stood immediately north of the site on the Ebbsfleet, believed to have been rebuilt in the 1530s but subsequently used from the late 1790s onwards by Parker and Wyatt to grind Roman Cement. This site was later incorporated into the Robins Works site, where Portland Cement was developed by Aspdin. The remains of part of these works are likely to lie within the red line boundary. The scale of the development is also likely to impact on the setting of designated heritage assets in the area including Aspdin's Kiln (Scheduled Monument but not visible from the public realm at the current time) and compete with the visual prominence of the churches on The Hill at Northfleet. Consideration will also need to be given as to whether the existing wooden stand at the football ground (which dates from 1914) should be treated as a non-designated heritage asset with this included in the planning balance.
- **Employment impacts** – Local Plan policy CS07 is quite explicit in that it anticipates new office employment floorspace to be located on identified allocated key sites; in Gravesend Town Centre; and at Ebbsfleet. The application site does not form part of a key site under policy CS03 and Figure 4. Paragraph 5.1.30 to policy CS07 requires the NPPF sequential test to be applied to proposed office development outside of

those areas, with sites within 500 metres walking distance of Ebbsfleet Station being treated as edge of centre.

As the development site would appear to be more than 500 metres walking distance from the station, a sequential site assessment should be provided in relation to the office component. In terms of NPPF paragraph 88, the site can be considered 'accessible' given proximity to the station, albeit it needs to be recognised that the 'town centre' in the form of Ebbsfleet Central has yet to be delivered.

In terms of justifying any office component against the sequential test, it may be arguable that the development needs to be considered in its entirety and, for it to be able to deliver scheme objectives. However, the points made earlier regarding the need for further information on how the development will deliver not only the new stadium but the means of securing the club's future and long-term progression into the football league apply. Such justification may also be important should a CPO be required, albeit a distinction should be made between this and the planning case.

For the sake of completeness, policy CS07 at paragraph 5.1.31 requires impact testing for office development outside of town centres exceeding 2,500 sqm floorspace. However, this policy requirement was designed to be consistent with NPPF (2012) paragraph 26. Such testing of impacts is no longer required under national policy, with NPPF (2021) paragraph 90 now only referring to retail and leisure development.

The application site is occupied by existing businesses which provide services in the local area and employment. The loss of these through development will need to be assessed against both national and local plan policy CS07. The applicant has provided a statement intending to show that the development would result in a net gain in employment and a range of other benefits that weigh in its favour. However, it is understood that whilst the application sets out the maximum level of floorspace to be created in different Use Classes, these are all based on 'up to' when it comes to the main employment generators. The implications of this will need to be considered against the requirements of policy in the planning balance, given it may not be guaranteed that compensatory employment would be delivered. As mentioned earlier, it would be appropriate to set minimum floor space figures in this regard.

Given the loss of existing businesses and employment which would occur from this proposal acquiring that land (which may not be able to relocate elsewhere in the area) it would also be useful to understand what the actual impact of this would be on the local economy and people involved and how that impact might be mitigated. This is particularly important given within the final planning balance this is capable of being a material planning consideration that could outweigh policy.

In addition to the above, any consideration of potential net gain in employment should have regard to whether jobs created on site displace those existing elsewhere – for example if spend on retail goods or services on site displaces spend in Gravesend town centre and the jobs associated with it given it is accepted that there will be an impact.

Notwithstanding the potential loss of existing employment uses on site, there will be remaining employment uses immediately adjacent. As noted elsewhere under noise and air quality etc, the NPPF paragraph 187 'agent of change' principle will apply.

- **Housing land supply** – As noted above, Gravesham cannot demonstrate a 5 year housing land supply and is failing the Housing Delivery Test. As such, the presumption in favour of sustainable development applies. However, whilst the proposal would make a significant contribution toward housing land supply in a sustainable location, the up to 3,500 residential units would be predominately studio, 1 and 2 bed flatted units (96%) with very few 3 bed units (6%). Consideration therefore needs to be given to the fit of the proposal with the local profile of housing need, having regard to the need for affordable housing products and meeting special housing needs, including those of an ageing population. Given the application is in outline form with all matters reserved saved main means of access, it would be useful to understand what opportunities might exist to negotiate a different mix of housing units to that evaluated and the implications. This will also have implications for likely asks in terms of planning obligations and the infrastructure needed to support the development.
- **Impact on supporting infrastructure** – The proposal will result in a need to divert and upgrade various items of infrastructure that cross the site. As this is an application for outline planning permission, it is likely that this is capable of being dealt with at the reserved matters stage, subject to the Parameter Plans allowing sufficient margins for the necessary wayleaves and future access. Whilst the utility providers will be able to provide comments on the application, it may be useful if the applicant can provide indicative plans and information on how this has been taken into account, given it could act as a constraint at the reserved matters stage requiring amendments to the approved scheme. This aside, the proposal will place additional burdens on a wide range of local infrastructure both on its own and in combination with other planned development. This will include transport, electrical supply, water and wastewater infrastructure. In addition, there will be additional demands for health care, education and other forms of social infrastructure. Whilst open space is being provided on site, this appears to rely on ratios taken from the Gravesham Open Space Study (2016) based on resident population. It is unclear whether the additional demands that might arise from employees and visitors have been taken into consideration. In addition, whilst the proposal includes a stadium with a football pitch (grass or artificial given EFL requirements?) there are no outdoor sports pitches provided to meet needs arising from the development itself which may place pressure on those in adjoining areas – including in Swanscombe, as Broomfield Road appear to be the closest and not just the borough itself. The increase in population will also place additional demand on indoor sports facilities within the area. The implications of this will need to be properly assessed and mitigated accordingly. On this, it is noted that the ES refers to a range of mitigation measures being addressed via s.106 contributions but no allowance has been made for this within the financial appraisal (see paragraph 52).
- **Financial Viability appraisal (FVA)** – The FVA needs to be reviewed with realistic assumptions on costs, income (property values), planning obligations inc. affordable housing. The FVA also needs to take into account changes to construction time frames and CPO Costs.

Further evidence

Based on the information submitted thus far (including information available to support the ES), the application should be supported by at least the following evidence which takes on board not only the comments provided above, but the comments provided by consultees. This evidence should reflect both the construction and operational phases of the development, taking into consideration the manner in which the development is being brought forward and the multifunctional nature of the proposed stadium.

- Biodiversity net gain information (including baseline ecological information, biodiversity gain plan and completed Natural England metric)
- Air Quality Assessment
- Ecological Impact Assessment Report
- Heritage and Archaeology Statement
- Flood risk assessment
- Non-mains drainage information
- Construction method statement
- Foul Sewerage and Surface Water (Drainage) Assessment
- Land Contamination Assessment
- Lighting Assessment
- Noise Impact Assessment
- Road Safety Audit
- Energy and Sustainability Assessment
- Mineral and Waste Assessment
- Transport Assessment and associated outputs
- Updated viability appraisal
- Updated ES
- Sufficient evidence for the competent authority (GBC) to undertake an HRA.



National Highways Planning Response (NHPR 21-09) Formal Recommendation to an Application for Planning Permission

From: Regional Director South East
Operations Directorate
South East Region
National Highways
planningse@nationalhighways.co.uk

To: Gravesham Borough Council – FAO Ms Genna Henry
Planning.reps@gravesham.gov.uk

CC: transportplanning@dft.gov.uk
spatialplanning@nationalhighways.co.uk

Council's Reference: 20221064

Location:

Land surrounding Ebbsfleet United FC, Bounded by Lower Road, Railway Line, Grove Road and The River Thames, Northfleet, Gravesend.

Proposal:

Outline planning application with all matters reserved, except for the primary means of access and road layout, for a phased mixed-use redevelopment involving the demolition of existing buildings and structures including site preparation / remediation works, and the development of residential units (Use Class C3), Class E uses including floorspace for retail Class E(a)), food/beverage and drinking establishments (Use Class E(b)), local services (Use Class E(c)), indoor sport/recreation/fitness (use Class E(d)), healthcare space (Use Class E(e)), creche/nursery uses (Use Class E(f)), office floorspace (Use Class E(g)(i)), a new multi-use stadium with associated business and leisure facilities (sui generis), hotel (Use Class C1), community uses floorspace (Use Class F2). The phased redevelopment will include other sui generis uses, delivery of open space and significant realignment of the road network including the A226 Galley Hill Road / Stonebridge Road / Lower Road with hard / soft landscaping, car and cycle parking provisions, infrastructure works, ancillary and associated works.

National Highways Ref: 96789 (Tracker ID: #18519)

Referring to the consultation on a planning application dated 16 November 2022 referenced above, in the vicinity of the A2 at Ebbsfleet Junction that forms part of the Strategic Road Network, notice is hereby given that National Highways' formal recommendation is that we:

- ~~a) offer no objection (see reasons at Annex A);~~
- ~~b) recommend that conditions should be attached to any planning permission that may be granted (see Annex A – National Highways recommended Planning Conditions & reasons);~~
- c) recommend that planning permission not be granted for a specified period (see reasons at Annex A);**
- ~~d) recommend that the application be refused (see reasons at Annex A)~~

Highways Act 1980 Section 175B is not relevant to this application.¹

This represents National Highways formal recommendation and is copied to the Department for Transport as per the terms of our Licence.

Should the Local Planning Authority not propose to determine the application in accordance with this recommendation they are required to consult the Secretary of State for Transport, as set out in the [Town and Country Planning \(Development Affecting Trunk Roads\) Direction 2018](#), via transportplanning@dft.gov.uk and may not determine the application until the consultation process is complete.

Signature: 	Date: 5 December 2022
Name: Marius Pieters	Position: Assistant Spatial Planner National Highways
National Highways Bridge House, 1 Walnut Tree Close, Guildford GU1 4LZ planningse@nationalhighways.co.uk	

¹ Where relevant, further information will be provided within Annex A.

Annex A **National Highway's assessment of the proposed development**

National Highways has been appointed by the Secretary of State for Transport as a strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). The SRN is a critical national asset and as such we work to ensure that it operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity.

Recommendation:

that planning permission not be granted for a specified period:

Reasons:

We will be concerned with proposals that have the potential to impact on the safe and efficient operation of the SRN, in this case, particularly within the vicinity of the A2 Ebbsfleet junction.

We require further information to be provided by the applicant on this application in order that an informed decision can be made in relation to the potential impacts of the development on the strategic road network. In particular, the following comments should be passed onto the applicant:

Residential Parking Levels

The residential parking ratio falls significantly below the presented Kent Residential Parking Standards (2021), with one space per dwelling for one-, two- or three-bedroom units and two spaces per dwelling for four-bedroom units.

In order to justify the residential trip generation site selection, with low parking availability, the Car Park Management Plan must provide clear measures to mitigate the risk of overspill parking.

ACTION: The Car Park Management Plan must provide clear measures to mitigate the risk of overspill parking.

Trip Generation

Residential

We observe that the residential trip rates and the selection criteria behind these presented in the main body of the TA in table 5.4 differ from those presented in Appendix G. Clarification from the Applicant is required before these trip rates can be accepted.

ACTION: Applicant to clarify discrepancies between residential trip rates in Table 5.4 and Appendix G of the Transport Assessment.

We will provide further comment on the residential trip rates when the above point has been clarified.

Retail

This methodology used for this land use may not be representative of the future retail element of the proposed development, resulting in an inaccurate assessment of trips related to this land use. It is requested that more conventional retail park land use trip rates are provided (ideally K – Retail Park Excluding Food) for a comparison against the Factory Outlet Centre subcategory and then proceed with the higher set of trip rates for a suitable assessment.

ACTION: Applicant to provide a comparison between the Factory Outlet Centre and Retail Park Excluding Food (or other appropriate Retail subcategory) trip rates, to provide a suitable assessment of this land use's trip rates.

The applicant states that the subsequent retail trip rates for the weekend reflected a parking accumulation exceeding the planned 700 spaces, with a factor of 0.72 derived to reduce the parking accumulation down to 700 vehicles. Whilst the 0.72 reduction factor reduces the parking accumulation to below 700, there is no explanation as to how this has been derived. It is noted that the arrival and departure figures do not add up to reflect the parking accumulation totals. Further clarity on this methodology is therefore required from the applicant.

ACTION: Applicant to provide calculations showing how factor of 0.72 has been derived and provide clarity on accumulation figures discrepancies.

It is considered that making use of constrained trip rates reflecting the retail parking offer may not reflect the actual retail trip generation, with customers potentially parking in other nearby areas across the site, by legitimate or illegitimate means. We therefore recommended that the Car Parking Management Plan is submitted for review, or further details provided on how parking across each land use will be controlled, before the above factor can be accepted.

ACTION: Applicant to provide either the Car Parking Management Plan for review, or further details on how parking areas will be controlled.

We see that the Applicant has used 2021 National Travel Survey data to calculate the weekday retail trips, as a proportion of the weekend retail trips. The Applicant states that weekday retail trips are typically 66% of the level of weekend retail trips, with the figures calculated accordingly. The data behind the calculation of the 66% figure has not been provided and no further evidence has been presented. This is requested.

ACTION: Applicant to present data/evidence behind the calculation of the 66% figure to calculate weekday retail trips.

Furthermore, it is unclear why a weekday set of TRICS trip rates for the retail land use has not been provided. It is therefore recommended that a weekday trip generation assessment is conducted using TRICS and compared to the trip rates produced using the National Travel Survey data factor.

ACTION: Applicant to present weekday retail trip rates from TRICS, to use as a comparison to those derived from the National Travel Survey factor.

We will provide further comment on the retail trip rates when the above points have been clarified.

Food & Beverage

The Applicant has used the Pub/Restaurant category to calculate the Food & Beverage land use trips. The weekday PM peak trip rates are acceptable. The weekday AM trip rate was not found in the TRICS output; despite being included in Table 5.4. Clarification on how the AM trip rate was calculated is required.

ACTION: Applicant to explain methodology behind Food & Beverage weekday AM Peak trip rates.

Office

The office trip rates are accepted.

Hotel

The hotel trip rates and the selection criteria behind these presented in the main body of the TA in table 5.4 differ from those presented in Appendix G. Clarification from the Applicant is required before these trip rates can be accepted.

ACTION: Applicant to clarify discrepancies between residential trip rates in Table 5.4 and Appendix G.

Community Uses

The Community Centre trip rates have used the “Edge of Town Centre” category, which is inconsistent with the other TRICS category selections and does not reflect the site’s location. An explanation for this selection or an amended trip generation is required before these trip rates can be accepted.

ACTION: Applicant to provide clarification on use of “Edge of Town Centre” category for Community Centre trip generation.

Local Services

The office trip rates are accepted.

Stadium

No trip generation assessment has been presented for the expanded stadium. As this land use forms an integral part of the proposed development, an assessment of the traffic generated is required.

ACTION: Applicant to conduct a trip generation assessment for the expanded stadium.

Trip Internalisation

The internalisation discounts to the Food & Beverage and Local Services land uses are accepted. A 20% discount to the Office land use appears generous and is considered to be a potential over-estimation due to the greater catchment area of this land use. The Applicant is therefore requested to provide evidence supporting the 20% internalisation discount to the Office land use.

ACTION: Applicant to provide evidence supporting the 20% internalisation discount to the Office land use.

Net Trip Generation Assessment

The Applicant has stated that as a worst case, no existing trip generation has currently been factored into the traffic impact assessment. This is accepted by us.

Traffic Assessment

Kent Transport Model

The Applicant intends to make use of the Kent Transport Model (KTM) as part of the traffic impact assessment. It is understood that the model outputs are not yet available. The Applicant has conducted junction modelling assessments of the A2/A2260 roundabouts which have been the focus of this review.

We note that weekday AM, Interpeak and PM models are included within the KTM, with no Saturday model available. It has been proposed to estimate Saturday traffic flows by using local Automatic Traffic Count data to calculate Interpeak to Saturday peak factors.

We agree that a Saturday peak model is required due to the retail and stadium element of the development proposals. However, basing this assessment off the weekday interpeak model is not considered to likely result in an accurate assessment due to the differing flow profiles.

Standalone Junction Modelling – A2/A2260 slip roads

The Applicant states that due to errors recorded within the traffic surveys, supplementary surveys will be conducted with additional modelling subsequently completed. This will be included within the supplementary TA. We will provide further comment on the junction models when this is received. We expect that the model files themselves along with annotated geometry drawings, queue length data for validation and any signal data will be provided for review.

In the absence of a Saturday peak scenario within the KTM, we recommend that Saturday peak Manual Classified Count surveys are carried out for the A2/A2260 junction roundabouts and the A2 Ebsfleet junction on and off-slips, in order to provide accurate baseline data for this scenario.

ACTION: Applicant to conduct Manual Classified Count surveys on a match and non-match day Saturday to calculate the Saturday peak baseline scenario.

Assessment Years

We see that the applicant has modelled a 2022 Base Year, 2031 Future Base and 2031 with Development scenarios. It is understood that 2031 is anticipated to be the year of the full build out of the development.

In line with DfT Circular 02/2013 paragraph 25, an opening year assessment is required. Additionally, a future assessment year is required, either ten years from the registration of the planning application, or the end of the Local Plan period, whichever is the greater. As the Gravesham Local Plan covers the period running from 2011-2028, the year ten years from registration will be greater. The application was registered in 2022, therefore an assessment year of 2032 would be anticipated. However, the applicant has modelled a future year of 2031 in line with the anticipated future year of full build-out and occupation.

ACTION: Applicant to carry out opening year assessment at the year the site is first expected to be occupied. This assessment needs to consider the development as fully built out.

ACTION: Applicant to use a future assessment year of 2032 for the modelling assessment

Background Growth

The Applicant has used TEMPro to derive growth factors for the future year assessment. We will review this information alongside the model files when received.

Committed Developments

The Applicant has not included specific committed developments within the modelling assessment, stating that these flows would be covered by the growth factors, subject to review by KCC. We expect however that the Applicant will provide either confirmation of this approach by KCC, or a list of committed developments agreed by KCC.

ACTION: Applicant to provide either confirmation from KCC that committed development flows do not specifically need to be modelled, or a list of committed developments agreed with KCC to factor into the junction modelling assessment.

Trip Distribution

The Applicant has assumed that development traffic will distribute in accordance with existing turning movements. We consider this approach to be too imprecise to enable a thorough and accurate assessment to be carried out and a more targeted approach is needed, making use of the KTM or data sources such as Census Journey to Work data.

ACTION: Applicant to provide a more detailed distribution analysis for the junction modelling assessment.

The above represents our *initial* requirements. As the analysis progresses, it is expected that we will have further requirements

Conclusion

Given the above, it is currently not possible to determine whether the application would have an unacceptable impact on the safety, reliability and/or operational efficiency of the SRN (the tests set out in DfT Circular 02/2013 [particularly paras 8 to 11] and MHCLG NPPF2021 [particularly paras 110 to 113]). This response details the steps that need to be taken in order to resolve this issue.

In light of the above, National Highways currently recommends that planning permission not be granted (other than a refusal if the Council so wishes) for a period of three months from the date of this response – 5th December 2022 - to allow the applicant to resolve the outstanding matters.

This recommendation can be replaced, renewed, or reviewed during the three-month period, or at its end, dependent on progress made with regards to the outstanding matters.

Appendix B

Northfleet Harbourside Kent County Council Consultee Comments

226728/N13

Introduction

1. This note has been prepared to provide a review of the traffic and transport comments made by Kent County Council (KCC) in response to the Northfleet Harbourside Planning application.
2. We have prepared an initial review of each relevant comment, a status update and then our proposed response or required action in **Table 1** below.

Table 1: KCC Comment and Response Location

Topic	Response
Transport Assessment	
In paragraph 1.2 it should be noted that the site is nearer to Gravesend than Dartford, with it being four kilometres from Gravesend town centre.	This update is provided at Paragraph 1.5
Figure 2.2 only shows the 2-kilometre walk isochrones and not the 800 metre isochrones as well, which are helpful in illustrating what is accessible within a 10 minute walk. The 800 metre isochrones should also be provided.	Figure 2.1 and Appendix C present these isochrones
Paragraph 2.13 refers to bus stops on Taunton Road. A description of the walking route between the site and the bus stops should be provided, include the crossing opportunities.	A description of this walking route is provided at Paragraphs 2.5-2.9.
Paragraph 2.29 notes that accident data from Crashmap has been analysed and not data from Kent County Council (KCC). An analysis of the KCC data should be provided as part of a supplementary Transport Assessment.	A full accident review using KCC accident data is presented at Paragraphs 2.11 to 2.19
Although not yet adopted, the applicant should consider the relevance of policies contained within the Gravesham Borough Council Regulation 18 Stage 2 Consultation Part 1: Local Plan Core Strategy Partial Review and Site Allocations and Part 2: Draft Development Management Policies documents. For each of the policy documents set out in Chapter 3, it should be demonstrated how the development proposals comply with the policies, rather than just list out the relevant policies.	These policies have been reviewed and are presented within Section 3 of the TAA, between Paragraph 3.11 to 3.21

A plan is required showing what is proposed at podium level. In particular, this should show the route of the proposed diversion of the A226 Galley Hill Road. The design of the diverted route will need to be assessed since it forms part of the site access arrangements.	Located at Appendix F
Figure 4.3 does not provide sufficient details of the proposals for the road layout. The changes proposed in paragraph 4.13, notably the realignment of the A226 and related junction alterations, as well as the proposed segregated Fastrack route should be shown on a plan. Further to this, what is the internal road hierarchy? What are the proposed primary route(s), secondary routes and potentially tertiary routes?	Located at Appendix F A road hierarchy plan is located at Figure 4.1
Paragraph 4.24 sets out the proposed six vehicular site access points. Although this is an outline planning application, means of access into and out of the Site from the highway network is being determined at this stage. It is therefore important that the proposals for each access point are clearly understood and assessed. As requested in the pre-application advice, site access plans (including changes to the highway) should be provided at an appropriate scale (1:500) including pedestrian and cycle access points, the highway boundary, appropriate vehicle visibility splays, vehicle tracking, and appropriate pedestrian and cycle crossings.	Located at Appendix F
An adoption plan should be provided where possible and a plan of the highway land proposed to be stopped up. As Galley Hill Road is an A class road, any changes to this highway should be designed to DMRB standards.	A plan showing the roads that would be adopted at the proposed site is shown at Figure 4.2
Paragraph 4.53 states one cycle parking space will be provided for each dwelling. Whilst this is in line with SPG4, EDC's Sustainable Travel Strategy requires one per bedroom, which may be more appropriate in this location and given the low parking provision.	Paragraph 4.43
Paragraph 5.25 states mode share for Ebbsfleet is 60%. This is incorrect.	Covered within the Trip Generation section (Section 5)
Paragraph 6.8 states "public transport model and associated variable demand model calculations will not be carried out for this task order as this assessment is not required by KCC". To be clear, whilst it was agreed not to use the KTM for this purpose, it was requested that the PT element was assessed in a desk-based assessment i.e calculate journey times using timetables and modelling results.	xx
Paragraph 8.4 refers to a signal scheme proposal for junction 4 associated with Blue Lake. To confirm, the Blue Lake site does not have planning permission, nor does it have a live application.	Removed from report, new KTM modelling results used.
Appendix J contains plans showing the proposals for the A226 Thames Way / B2175 Stonebridge Road and the A226 Galley Hill Road / Northfleet Industrial Estate junctions, at a scale of 1:1000 at A3. Break lines are	Located at Appendix F

shown where the road continues. However, this is not sufficient and the full road layout should be shown for the diverted section of the A226. A control / monitoring system such as UTMIC must be included in the detailed design proposals for all signal junctions. These plans should also be updated with the additional information requested above. The proposed speed limits should also be clarified. On the B2175 Stonebridge Road, the existing pedestrian crossing facility at the roundabout is proposed to be removed. This should instead be replaced with a signalised pedestrian crossing. What are the access proposals for the existing Plough / Golden Grill in this location? No plans have been submitted for the other site access junctions, but these are required.	The monitoring is outlined at Paragraph 4.28 The proposed speed limits at the site are clarified at Paragraph 4.10 Incorporated into plans at Appendix F Incorporated into plans at Appendix F Incorporated into plans at Appendix F
A Stage 1 Road Safety Audit was requested as part of the pre-application advice. However, this is outstanding and should be submitted along with the Designers Response to determine the acceptability of the access proposals. Any departures from standards must be highlighted.	This will be completed prior to determination
What is the route for Fastrack across the site? How does this relate to the cross-section for the Bus Corridor shown in Figure 4.5?	A plan is provided at Appendix F
How does the proposed segregated Fastrack route connect to the road network at either end of the segregated section? Plans showing the proposed junctions should be submitted (one of which is noted as the Grove Road / B2175 Stonebridge Road junction), which should include Fastrack priority measures such as bus gates and green wave at signals;	See the plans located at Appendix F
How does the mode share presented in Table 4.2 relate to the actual forecast of passenger numbers? Has this been based on 2011 or 2021 Census data?	Paragraph 4.29 responds to this comment
Where would the bus stops within the site be located (this should be shown on a plan) and what facilities would be provided at these bus stops? and	See Figure 4.3 and Paragraph 4.23
How would the proposed segregated Fastrack route affect existing Fastrack journey times?	This calculation is presented at Paragraph 4.24
What are the proposals for commercial bus services? In addition to Fastrack, routes 3, 34, 306, 480 Sapphire, 490 Sapphire and X55 currently serve stops within the site. How are the bus stops known as	A section on the commercial bus services is provided

Taunton Road impacted by the proposed diversion of the A226 Galley Hill Road?	within Section 4 (Paragraphs 4.26-4.27)
Figure 4.4 shows the pedestrian access points. It does not show a pedestrian route connecting onto Grove Road and this should be reconsidered. The redevelopment of the site bordering the eastern side of Grove Road, along with associated pedestrian and segregated cycle upgrades to Grove Road, is uncertain. Therefore, since this site shares a boundary with Grove Road to the east, pedestrian and cycle improvements to Grove Road should be considered as part of the proposals.	Figure 4.4 presents the pedestrian routes and access points. Pedestrian connections through to Grove Road are outlined within Figure 4.4.
How do the pedestrian routes shown in figure 4.4 relate to the proposed diversion of the Public Right of Ways referred to in paragraph 4.27, including KCC's ambition to divert the English Coastal Path through the site upon completion of the development? PROW NU1 and National Trail, the England Coast Path will be affected, and further information is required.	See Paragraph 4.34 to 4.46 and Figure 4.4
Figure 4.6 shows the cycle access points. Similarly to pedestrians, it does not show a cycle route connecting onto Grove Road. Indeed, whilst several north-south cycle routes are shown, there is a lack of east-west cycle routes shown on figure 4.6. There is likely to be an existing demand for cyclists travelling from the B2175 Stonebridge Road which should be accommodated. 3 metre shared footway / cycleways as referenced in paragraph 4.31 and shown in Figure 4.5 are not acceptable. This also applies to the realigned A226 Galley Hill Road which is proposed to provide facilities for cyclists. Cycleways should be segregated from footways to provide high quality and attractive routes for pedestrians and cyclists. This is made clear in LTN 1/20 which states that "on urban streets, cyclists must be physically separated from pedestrians and should not share space with pedestrians." A 0.5m verge is proposed, but KCC require a minimum of 1 metre in width to be a functional component of the public realm.	The site is highly permeable to cyclists as described at Paragraphs 4.47-4.48. See the plans located at Appendix F See the plans located at Appendix F
It is assumed that the cross sections shown in Figure 4.5 relate to the realigned A226 Galley Hill Road (the HGV Access Corridor) and the segregated Fastrack route (the Bus Corridor), but this should be made clear and further commentary will subsequently be provided.	See the plans located at Appendix F
The principle of a Mobility Hub is supported. The proposed location should be shown on a plan, since it is important for it to be conveniently located and accessible by a range of sustainable modes. It should include all of the features listed in paragraph 4.36 of the TA.	The proposed mobility hub location is presented at Figure 4.5
Table 4.2 presents the car ownership data from the 2011 Census for the local area. This supports the assertion that the existing levels of car	This is reiterated at Paragraph 4.52

ownership are low for flats and maisonettes. It is also acknowledged that with appropriate sustainable travel measures, including a car club and mobility hub, there is potential for a further reduction in car use at the site. With this in place, an overall residential parking provision of 0.5 spaces per unit may be acceptable.	
Please provide further evidence to show how many car club vehicles are required, so these can be secured. The EDC Sustainable Travel Strategy states "The aim should be for every resident to have access to at least two car club parking bays within 5 minutes walking radius".	See Paragraph 4.57 and Figure 4.6
For non-residential uses, the proposed car, EV, motorcycle and disabled parking provision for each land use should be set out against the relevant parking standard to allow the proposed provision to be assessed. The scope to reduce overall parking through shared provision can then be explored.	The relative number of car parking spaces are provided within Table 4.3
Will any parking for the existing uses be retained?	None of the existing parking will be retained, as noted at Paragraph 4.51
Does sufficient capacity exist on alternative modes to meet demand and ensure there are a choice of modes available as alternatives to the private car?	As outlined within Section 2 the site is well situated with regard to high frequency bus and rail services and as such would be able to accommodate the demand from the site
The Ebbsfleet United Football Stadium website currently directs drivers to park in Ebbsfleet International Car Park C. Do the proposals also include promoting the Station to park? Ebbsfleet International Car Parks are currently included in the Ebbsfleet Central application which is currently live (EDC/22/0168).	This would not be promoted as outlined at Paragraph 4.64
As set out in the pre-application advice, it was recommended that the traffic associated with the existing uses to be replaced by the Development was surveyed. This has not been undertaken and it has instead been decided not to discount the existing uses from the proposed development traffic. This methodology is acceptable.	Covered within the updated Trip Generation and Impact sections
Paragraph 5.8 states that Private Flats have been used to derive residential trip rates. However, the TRICS output in Appendix G shows that Mixed Private Housing trip rates have been used. The total vehicular residential trip rates presented in Table 5.4 are different from those in Appendix G. Please confirm the correct trip rates. Table 5.4 should also provide the unit (e.g., per dwelling or 100 sqm etc).	Covered within the Trip Generation section (Section 5)

Why has the trip attraction for the stadium not been considered and why is it excluded from Table 5.4, when paragraph 6.28 states that the assessment will consider the stadium fully operational at maximum capacity of 8,000 spectators? The discrepancy should be clarified. Whilst the stadium is an existing use, the current capacity is 4,769 (of which 2,179 are seated), whilst the proposed capacity is stated to be an uplift to 8,000 seats in paragraph 4.3. The Design and Access Statement states that it could also hold major events of between 10,000 – 18,000 visitors. How often would major events take place? It is recommended that an Event Management Plan is submitted for review and secured by planning condition.	Covered within the Trip Generation section (Section 5) This would be reviewed in more detail prior to determination This would be agreed prior to determination
The two retail factory store surveys undertaken on a Sunday do not provide a robust basis on which to assess the weekday AM and PM peak hours, particularly since Sunday trading hours are different. Whilst the principle of applying an internalisation factor to trip rates at a mixed use development is accepted, the factors set out in paragraph 5.18 should be supported by evidence to justify the reductions. The mode shares are presented in Table 5.6 of the TA. For the residential development, 29% of trips as car driver appears too low, as does just 3% of trips by rail, given the convenience and attractiveness of commuting to London for work from the site. The vehicle occupancy and pedestrian mode shares look significantly high. Further evidence / justification is required in order for this to be accepted. The assessment scenarios should also consider With and Without Ebbsfleet Central scenarios, since the Ebbsfleet Central site is located in proximity to the development site and the planning application has not yet been determined. The traffic counts listed in paragraph 6.24 have not been provided for review and are required (Excel format would be appreciated). Plans should be provided (to scale) showing assumed geometry for the model inputs. Paragraph 6.35 states that traffic has been distributed in accordance with existing turning movements. This is too simplistic for a development of this scale and is not acceptable. Distribution, including the use of 2011 / 2021 Census journey to work data can be discussed in more detail as part of the KTM work. The ability of the railway network to accommodate the increase in demand should be explored and confirmed, assuming a worst-case scenario. This	Covered within Section 5 and Section 6

was requested during pre-application advice and has not been set out in the Transport Assessment.	
Pedestrian and Cycle Audit	
A desk-based audit of the existing walking and cycling routes has been undertaken from the site boundary to Ebbsfleet International Station, Northfleet Railway Station and Swanscombe Railway Station. A desk-based audit is not sufficient to provide an accurate assessment and a site visit should be undertaken instead.	A site visit was undertaken to inform this assessment, as outlined within Paragraph 2.
It is unclear whether the audit assesses the existing situation or the future scenario with the development in place. For example, the proposals show the need to cross the B2175 Stonebridge Road to access Northfleet rail station. However, the site access proposals provided in Appendix J of the Transport Assessment do not show a pedestrian crossing facility on the B2175 Stonebridge Road to replace the existing crossing.	The latest access drawings within the TAA Appendix F outline the proposed pedestrian crossings.
In terms of the routes considered, whilst the routes to the nearest rail stations are important, routes to the nearest town centres, primary and secondary schools should be assessed as well. This is particularly the case for schools since the proposals comprise approximately 3,500 residential units.	Additional routes have been considered within this assessment as outlined at Paragraph 4.
The audit states that segregation for cyclists along the route to Northfleet rail station could make this route more attractive to cyclists. It also states that pedestrian crossings on the route to Ebbsfleet station should be moved to the desire lines. Plans illustrating the exact location of these proposals should be submitted.	All pedestrian crossing updates are presented within the plans at Appendix F of the TAA.
A description of the facilities at Northfleet Station for pedestrians and cyclists should be included in the audit / within paragraph 2.16 of the TA. Improvements may be required.	The facilities at Northfleet Station are outlined at Paragraphs 2.8-2.10 of the Transport Assessment Addendum
Framework Travel Plan	
The FTP does not provide sufficient detail in respect of the proposed measures, monitoring and review mechanism. It should be expanded with further details provided on, but not limited to the following:	
The type of cycling parking which is proposed since residential and non-residential uses will have different requirements. Cycle parking should be high quality to ensure it will be safe and well-used. A proportion of cycle parking spaces should be designed for disabled / adapted cycles and bikes for hire should be included and costed within the FTP;	Paragraph 6.12 – 6.21
Showers, lockers and changing facilities should be provided for use by the non-residential uses on the site;	Paragraph 6.13

The Mobility Hub should be referred to in the FTP, since it could function as a focal point for the proposed travel planning measures;	Included with a detailed description within Section 6
The targets should be considered alongside the trip generation set out in the TA, once it has been agreed;	The updated targets are outlined within Section 4
Why is the target only 5% reduction in car-based trips? The standards approach is 10%.	This has been updated to 10% within Table 4.1
What remedial measures would be taken should the Travel Plan not achieve its targets?	Paragraph 7.7
A proposal to establish a Transport Review Group, of which the Travel Plan Co-Ordinator would form part of as well other key stakeholders which should be identified;	This is outlined at Paragraph 7.10
The review and reporting should be managed through the Transport Review Group;	This is outlined at Paragraph 7.10
The monitoring mechanism should acknowledge that the development will be built in phases with the construction programme lasting over nine years, with first occupation taking place at the end of year 5 (according to the Construction Programme shown in figure 5.3 of the Construction and Demolition ES Chapter). The monitoring period will need to commence at occupation and then continue every six months for a period until at least five years after full occupation. The monitoring period in the FTP should be updated accordingly;	The monitoring mechanism is outlined within Section 7, between Paragraph 7.2-7.9.
An example travel survey which could be used as part of the Monitoring Programme should be provided. This should include site wide vehicle, pedestrian, cycle and public transport monitoring surveys, information on car club usage and parking surveys in the local area to confirm the site is not generating on street parking issues elsewhere;	This is presented Appendix D of the TAA.
Details of the on-site car club should be included in the Travel Plan, including the number of spaces to be provided; and	Details of the on site car club proposals are presented within Section 6 at Paragraphs 6.32 and 6.33, and Figure 6.1
An adult annual Thameside bus ticket should be provided for each resident at the development and for each member of staff employed at the non-residential uses. Alternatively, the same cost may be distributed in the form of KCCs MAAS equivalent credits, if this is available at the time. The FTP would form the framework for the development of a Side Wide Travel Plan as the development is built out.	This is outlined within Section 6 between Paragraph 6.26 and 6.28
Construction Traffic Management Plan	

The construction programme in Table 3.1 shows that it has a construction period over at least nine years, which contradicts the 6-7 year duration referenced in paragraph 3.2.	Paragraph 3.1 confirms that the construction period is forecast to be 9 years.
The proposed HGV routes shown on Figure 4.1 are supported. HGV's associated with construction should be restricted to the identified routes.	Paragraph 4.5 outlines that drivers would have to use the specific HGV routes to the site.
Paragraph 4.6 refers to access points for vehicles and pedestrians. Where will these be located for phase one and phase two? Paragraph 5.1 notes that a limited amount of parking will be provided, but how much and where will it be located? A figure showing the construction routes and access points into the site would be helpful. Access to existing businesses and properties should be maintained.	Paragraph 4.6 and Figure 4.2 present the vehicle access points with Paragraph 4.7 outlining that suitable pedestrian access points would be provided for each phase.
Paragraph 5.71 and Figure 5.14 of the Demolition and Construction ES Chapter contain an estimate of HGV numbers, which could be as high as 128 HGV movements per day. The estimated numbers should be included in the FCTMP.	The 128 HGV movements figure is presented at paragraph 6.1.
No mention is made of the potential for the river to be used to transport materials during construction and therefore mitigate the potential impact on the local road network. Since the site has a section of river frontage, has use of the river been considered as part of the proposals? It appears that part of the existing jetty lies within the site, whilst part of it is not in the red line boundary. Confirmation should be provided as to whether the jetty is within the applicants control and could be used during construction.	The potential for the river to be utilised is outlined at Paragraph 5.19.
What is the anticipated mode share for construction workers? Construction workers should be encouraged to travel by sustainable means as far as possible and a Construction Worker Travel Plan should form part of the Construction Traffic Management Plan.	This is presented at Table 5.1.
Framework Car Park Management Plan	
Further justification is required to support the proposed parking provision referenced in paragraph 1.4 and Table 1. This document should also set out the number of disabled, motorcycle and EV car parking spaces.	This is addressed within Section 2 of the CPMP.
The number of potential permits issued to each residential unit should correspond to the number of spaces permissible under the adopted Car Parking Standards.	This is addressed at Paragraph 3.3
The FCPMP should consider how site users will be prevented from parking in Ebbsfleet rail station car park, particularly when events are held at the stadium.	Parking as described would not be promoted, as

	described within Paragraph 3.8
The FCPMP should be reviewed as Reserved Matters Applications come forward for individual development plots.	Paragraph 1.6
Paragraph 3.6 states that “car parking will be restricted along the internal roads at the site” and that “parking restrictions will prevent parking at all times along the Fastrack bus route”. Gravesham Borough Council are the parking authority and will need to enforce parking restrictions on the adopted highway. Any areas that remain unadopted will need to be enforced privately.	Paragraph 3.7 and Figure 3.1
The FCPMP should include a commitment to undertake surveys of parking on local roads (pre- and post-occupation), in co-ordination with the FTP. A plan should be provided for agreement, showing the extent of the area to be considered. Initiatives should be set out to demonstrate how the Applicant would reduce this impact, should an issue be highlighted. This may include a financial contribution towards the consultation for the introduction of parking controls.	Figure 4.1 and Paragraph 4.3

Northfleet Harbourside Gravesham Borough Council Consultee Comments

226728/N11

Introduction

1. This note has been prepared to provide a review of the traffic and transport comments made by Gravesham Borough Council (GBC) in response to the Northfleet Harbourside Planning application.
2. We have prepared an initial review of each relevant comment, a status update and then our proposed response or required action in **Table 1** below.

Table 1

GBC Comment	Response
Seacon have two access points into their site, whilst provision has been made to serve their main access within this proposal, the other access adjacent to Britannia Refined Metals Ltd is omitted, without any consideration of Seacon's operational requirements. The plans also remove parking for Britannia Refined Metals Ltd employees and visitors, as well as HGV parking, this needs to be addressed.	Discussions with Seacon were undertaken in April 2023, as outlined within Paragraph 4.8. xxx
Lower Road – Traffic is diverted but the section to the west is shown as remaining. Unclear what happens to this section of lower road outside the red line. In its present form this would create a poor environment and act as a barrier to the cycling and pedestrian links being provided towards Swanscombe Peninsula. 	Lower Road is located outside of the site boundary and as such any updates to this section of highway would be subject to a separate application, as outlined at Paragraph 4.9

Clarity needs to be provided on how the indicative cycle link outside of the red line will be delivered (to the northwest into the Marshes), there is also a query of how the development including the cycling links and the pedestrian paths link in with the King Charles III Coast Path (see screenshots of location and Coast Path below).	There will be no updates made to the cycle links outside of the site boundary. The route of the King Charles III Coast Path has been considered in detail at Paragraphs 4.35-3.46
As part of Northfleet Embankment West, Bellway have committed to providing Fastrack access to the development via Grove Road. This bus service would also serve Northfleet Harbourside, should the development come forward. The road layout currently proposed, does not make adequate provision for a bus service to link to Grove Road from the proposed development. This needs to be reconsidered and the EDC need's to engaged regarding improving public transport, cycling and pedestrian access to and from Grove Road via land potentially in their ownership and within the applicant's redline boundary, see screenshot below. These improved pedestrians and cycling links also have the opportunity to improve the Coastal Path.	This routing would involve travelling through third party land not located within the site red line and as such has not been considered within the TAA as outlined at Paragraph 4.25
Further consideration also needs to be given to improving both pedestrian and cycling links to Ebbsfleet Railway Station, Northfleet Railway Station, Northfleet High Street/The Hill, at present only indicative pedestrian routes are shown and these would be inadequate.	Improvements of this kind could be achieved through a S106 application, as outlined at Paragraph 2.10
Is the proposed provision of residential spaces suitable to accommodate the total number of units, especially studio/1-beds. Indicative numbers suggest that if there are 1,589 2/3bed dwellings (as stated in the planning statement) then there will be just 161 spaces available for the 1,911 studio/1 bed spaces. If spaces are provided on a first come first serve basis, there is the potential that spaces would not be located in close proximity to a dwelling e.g. in a different block. How would parking spaces be distribution in relation to the different residential dwelling types.	Residential parking proposals are outlined in detail within Section 4 at Paragraph 4.52-4.57
Lack of detail regarding access points into parking or servicing areas. Would the access into the marketplace servicing area require a junction arrangement and signals on the A226?	Shown within plans at Appendix F.
Would be useful to understand how many spaces will be provided at the marketplace and stadium parking areas and whether this accounts	Non-residential parking is discussed

for the 950 spaces. Also will these be visitor spaces for the non-resi uses, or will this include visitor spaces for the resi units too? If not where will the resi spaces be located?	between Paragraph 4.58-4.64
Thought needs to be given to off site improvements to the cycle network and additional cycle parking at key locations.	Improvements of this kind could be achieved through a S106 application, as outlined at Paragraph 2.10
Thought may also be given to improvements to the existing PROWs, particularly NU2/DS17.	Improvements of this kind could be achieved through a S106 application, as outlined at Paragraph 4.42
Consideration should be made to the current closure (landslide) at Galley Hill Road and the potential impacts on construction/operational phases of the proposed development should the closure continue for a prolonged period.	Consideration has been made to the landslide along Galley Hill Road, as discussed at Paragraph 4.8 of the CTMP
EV Passive provision space - Indication of the mechanism that will be put in place to facilitate retrofitting spaces particularly if spaces are not allocated and individual occupiers of residential units would be unlikely to pay for installation under such circumstances. Consideration also needs to be given to more rapid charging in the commercial car parks, which would in any event need to meet standards set out in Part S of Building Regulations.	EV parking is discussed at Paragraph 4.61-4.63, this includes a description of the mechanism that would be employed to retrofit passive EV spaces and rapid charging.
Thought should also be given to the potential to promote and use waterborne transport during both the construction and operational phases.	The use of the river within the construction phases of the development is discussed at Paragraph 5.19 of the CTMP

How will the new highway layout perform when there are incidents on the A2 and/or Dartford Crossing because flows transfer to the A226 and other local roads? The development if permitted could potentially be built out at the same time as Ebbsfleet Central and the Lower Thames Crossing and the implications of this need to be understood. For example, would it be possible to provide an indication of what temporary arrangements could be put in place to divert the A226 and local highway links during construction?	These points are considered and discusses within Section 4 of the CTMP at Paragraph 4.8.
CPMP states car parking will be restricted along internal roads and that this will include Fastrack routes so that services continue to operate smoothly. An appointed estate management company and/or housing providers will be responsible for enforcing the CPMP and will have powers to penalise any unauthorised parking. However, it is not clear at this stage what internal roads will fall under the management company's jurisdiction and what roads will fall under the local highway authority/borough council in terms of enforcement. This may have implications in terms of Traffic Regulation Orders etc. that need to be resolved.	The roads proposed to be adopted within the site are outlined at Figure 3.1 of the CPMP.
Has the guide to safety in sports grounds been consulted with regard to the emergency access arrangements in Figure 4.1 of the TA (So access onto the A226). Is enough detail provided as to how the site/stadium would be accessed in an emergency?	This would be reviewed in detail at the Reserved Matters stage

Northfleet Harbourside

National Highways Consultee Comments

226728/N14

Introduction

1. This note has been prepared to provide a review of the traffic and transport comments made by National Highways (NH) in response to the Northfleet Harbourside Planning application.
2. We have prepared an initial review of each relevant comment, a status update and then our proposed response or required action in **Table 1** below.

Table 1

NH Comment	Action	Response
Residential Parking Levels		
The residential parking ratio falls significantly below the presented Kent Residential Parking Standards (2021), but one space per dwelling for one-, two- or three-bedroom units and two spaces per dwelling for four-bedroom units In order to justify the residential trip generation site selection, with low parking availability, the Car Park Management Plan must provide clear measures to mitigate the risk of overspill parking.	The Car Park Management Plan must provide clear measures to mitigate the risk of overspill parking.	Section 3 of the CPMP outlines a number of measures, including parking restrictions that would mitigate the risk of overspill parking.
Trip Generation		
We observe that the residential trip rates and the selection criteria behind these presented in the main body of the TA in Table 5.4 differ from those presented in Appendix G. Clarification from the applicant is required before these trip rates can be accepted.	Applicant to clarify discrepancies between residential trip rates in Table 5.4 and Appendix G of the Transport Assessment.	Updated Trip Generation presented in Section 5 of the TAA.
This methodology used for this land use may not be representative of the future retail element of the proposed development, resulting in an inaccurate assessment of trips related to this land use. It is requested that more conventional retail park land use trip rates are provided (ideally K - retail park	Applicant to provide a comparison between the Factory Outlet Centre and Retail Park excluding Food (or other appropriate Retail subcategory) trip rates, to	Updated Trip Generation presented in Section 5 of the TAA.

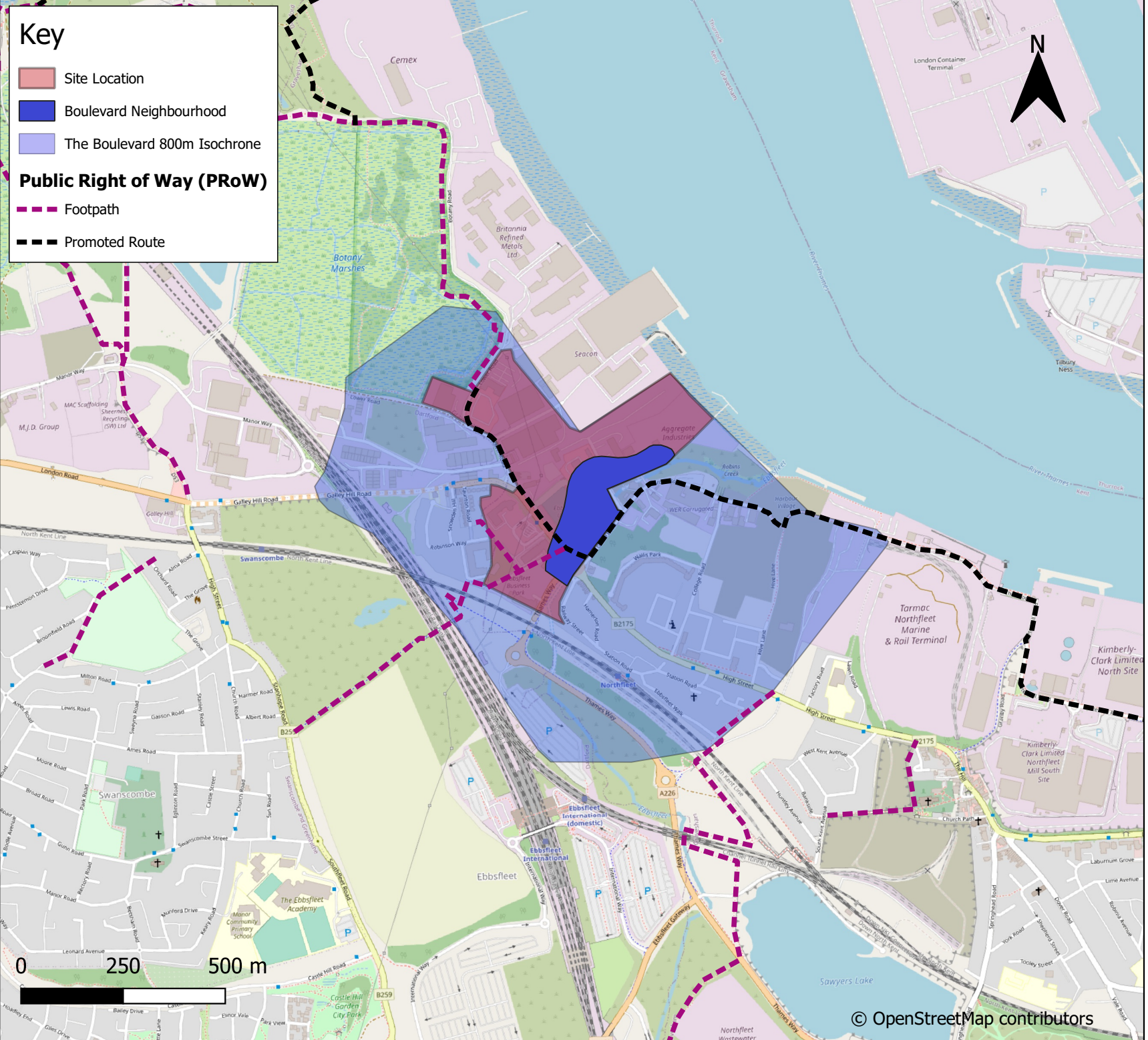
excluding food) for comparison against the factory outlet centre subcategory and then proceed with the highest set of trip rates for a suitable assessment.	provide a suitable assessment of this land use's trip rates.	
The applicant states that the subsequent retail trip rates for the weekend reflected a parking accumulation exceeding the plans 700 spaces, with a factor of 0.72 derived to reduce the parking accumulation down to 700 vehicles. Whilst the 0.72 reduction factor reduces the parking accumulation to below 700, there is no explanation as to how this has been derived. It is noted that the arrival and departure figures do not add up to reflect the parking accumulation totals. Further clarity on this methodology is therefore required from the applicant.	Applicant to provide calculations showing how factor of 0.72 has derived and provide clarity on accumulation figures discrepancies.	Updated Trip Generation presented in Section 5 of the TAA.
It is considered that making use of constrained trip rates reflecting the retail parking offer may not reflect the actual retail trip generation, with customers potentially parking in other nearby areas across the site, by legitimate or illegitimate means. We therefore recommend that the Car Parking Management Plan is submitted for review, or further details provided on how parking across each land use will be controlled before the action can be accepted.	Applicant to provide either the Car Parking Management Plan for review, or further details on how parking areas will be controlled.	CPMP prepared with section on car parking management.
We see that the Applicant has used 2021 National Travel Survey data to calculate the weekday retail trips, as a proportion of the weekend retail trips. The applicant states that weekday retail trips are typically 66% of the level of weekend retail trips, with the figures calculated accordingly. The data behind the calculation of the 66% figure has not been provided and no further evidence has been presented. This is requested.	Applicant to present data/evidence behind the calculation of the 65% figure to calculate weekday retail trips.	Updated Trip Generation presented in Section 5 of the TAA.
Furthermore, it is unclear why a weekday set of TRICS trip rates for the retail land use has not been provided. It is therefore recommended that a weekday trip generation assessment is conducted using TRICS and compared to the trip rates	Applicant to present weekday retail trip rates from TRICS, to use as a comparison to those derived from the National Travel Survey factor.	Updated Trip Generation presented in Section 5 of the TAA.

produced using the National Travel Survey data factor.		
The applicant has used the pub/restaurant category to calculate the food & beverage land use trips. The weekday PM peak trip rates are acceptable. The weekday AM trip rate was not found in the TRICS output; despite being included in Table 5.4. Clarification on how the AM trip rate calculated is required.	Applicant to explain methodology behind Food & Beverage weekday AM peak trip rates.	Updated Trip Generation presented in Section 5 of the TAA.
The hotel trip rates and the selection criteria behind these presented in the main body of the TA in Table 5.4 differ from those presented in Appendix G. Clarification from the applicant is required before these trip rates can be accepted.	Applicant to clarify discrepancies between residential trip rates in Table 5.4 and Appendix G.	Updated Trip Generation presented in Section 5 of the TAA.
The community centre trip rates have used the “edge of town centre” category, which is inconsistent with the other TRICS category selections and does not reflect the site’s location. An explanation for this selection or an amended trip generation is required before these trip rates can be accepted.	Applicant to provide clarification on use to “Edge of Town Centre” category for Community Centre trip generation.	Updated Trip Generation presented in Section 5 of the TAA.
No trip generation assessment has been presented for the expanded stadium. As this land use forms an integral part of the proposed development, an assessment of the traffic generated is required.	Applicant to conduct a trip generation assessment for the expanded stadium.	Updated Trip Generation presented in Section 5 of the TAA.
Trip Internalisation		
The internalisation discounts to the food & beverage and local services land uses are accepted. A 20% discount to the office land use appears generous and is considered to be a potential overestimation due to the greater catchment area of this land use. The Applicant is therefore requested to provide evidence supporting the 20% internalisation discount to the office land use.	Applicant to provide evidence supporting the 20% internalisation discount to the Office land use.	Updated Trip Generation presented in Section 5 of the TAA.
Traffic Assessment		
The Applicant intends to make use of the Kent Transport Model (KTM) as part of the traffic impact assessment. It is understood that the model outputs are not yet available. The Applicant has conducted junction	Applicant to conduct Manual Classified Count surveys on a match and non-match day Saturday to calculate the	ATC’s were in place for a period including both a Saturday matchday and Saturday non-

modelling assessments of the A2/A2260 roundabouts which have been the focus of this review. We note that weekday AM, Interpeak and PM models are included within the KTM, with no Saturday model available. It has been proposed to estimate Saturday traffic flows by using local Automatic Traffic Count data to calculate Interpeak to Saturday peak factors. We agree that a Saturday peak model is required due to the retail and stadium element of the development proposals. However, basing this assessment off the weekday Interpeak model is not considered to likely result in an accurate assessment due to the differing flow profiles. <i>Standalone Junction Modelling – A2/A2260 slip roads</i> The Applicant states that due to errors recorded within the traffic surveys, supplementary surveys will be conducted with additional modelling subsequently completed. This will be included within the supplementary TA. We will provide further comment on the junction models when this is received. We expect that the model files themselves along with annotated geometry drawings, queue length data for validation and any signal data will be provided for review. In the absence of a Saturday peak scenario within the KTM, we recommend that Saturday peak Manual Classified Count surveys are carried out for the A2/A2260 junction roundabouts and the A2 Ebbsfleet junction on and off-slips, in order to provide accurate baseline data this scenario.	Saturday peak baseline scenario.	matchday. This information was used to calculate the Saturday peak baseline scenario.
We see that the Applicant has modelled a 2022 base year, 2031 future base and 2031 with development scenarios. It is understood that 2031 is anticipated to be the year of the full build out of the development.	Applicant to carry out opening year assessment at the year the site is first expected to be occupied. This assessment	We have undertaken modelling for 2030 future year. See

In line with the DfT circular 02/2013 paragraph 25, an opening year assessment is required. Additionally, a future assessment year is required, either 10 years from the registration of the planning application, or the end of the Local Plan period, whichever is the greater. As the Gravesham Local Plan covers the period running from 2011-2028, the year 10 years from registration will be greater. The application was registered in 2022, therefore an assessment of 2032 would be anticipated. However, the applicant has modelled a future year of 2031 in line with the anticipated future year a full build out and occupation.	needs to consider the development as fully built out. Applicant to use a future assessment year of 2032 for the modelling assessment.	Section 6 of the TAA.
The Applicant has not included specific committed developments within the modelling assessment, stating that these flows would be covered by the growth factors, subject to review by KCC. We expect however that the applicant will provide either confirmation of this approach by KCC, or a list of committed development agreed by KCC.	Applicant to provide either confirmation from KCC that committed development flows do not specifically need to be modelled, or a list of committed developments agreed with KCC to factor into the junction modelling assessment.	Updated Modelling at Section 6 of the TAA
The applicant has assumed that development traffic will distribute in accordance with existing turning movements. We consider this approach to be too imprecise to enable a thorough and accurate assessment to be carried out and a more targeted approach is needed, making use of the KTM or data sources such as Census Journey to Work data.	Applicant to provide a more detailed distribution analysis for the junction modelling assessment.	The KTM has been utilised to inform the distribution for the site.

Appendix C



Key

- Site Location
- Boulevard Neighbourhood
- The Boulevard 800m Isochrone

Public Right of Way (PRoW)

- Footpath
- Promoted Route

Key

- Site Location
- Boulevard Neighbourhood
- The Boulevard 800m Isochrone

Public Right of Way (PRoW)

- Footpath
- Promoted Route

Northfleet Central 1 Ltd

Northfleet Harbourside, Gravesham

The Boulevard Neighbourhood PROWs and 800m Isochrone

vectos.

— PART OF **SLR**

Drawn By: BH
Checked By: BH
26/09/2022
Figure 2.2.1