

Transport Assessment

Former Tollgate Hotel, Gravesend

16 September 2024

Prepared for

BP Pulse



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1. Introduction

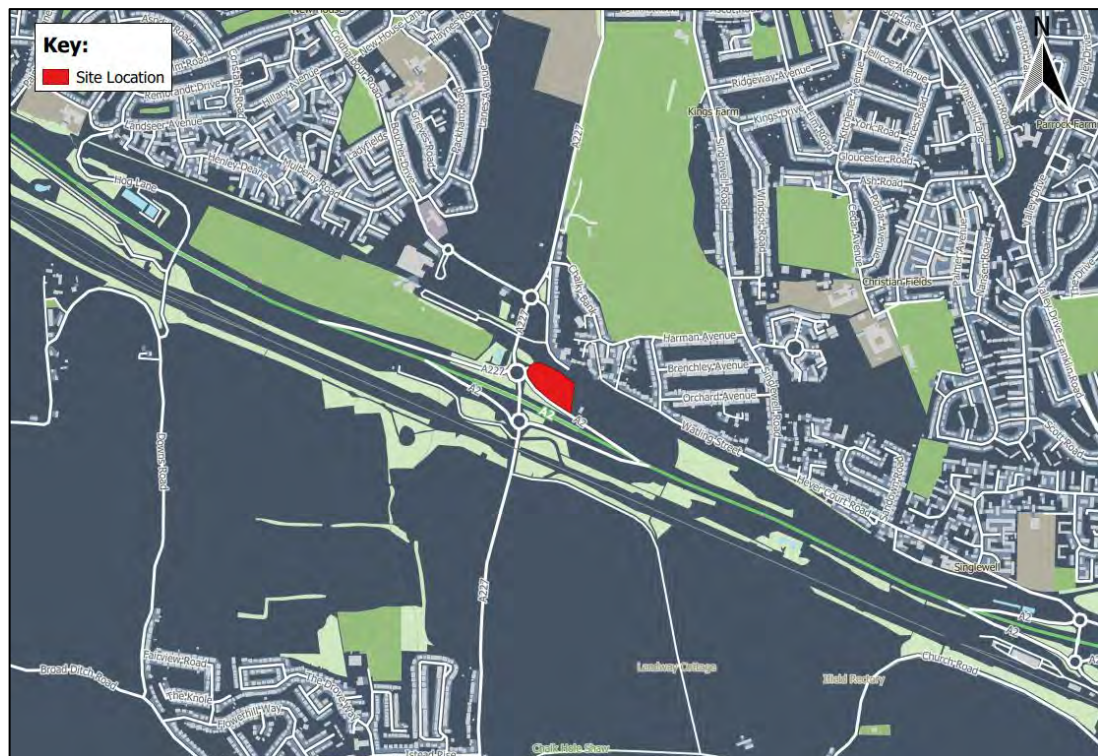
1.1 Preamble

- 1.1.1 Markides Associates (MA) have been appointed by BP Pulse to provide transport planning advice with respect to the proposals at the Former Tollgate Hotel in Gravesend, Kent.

1.2 Site Location

- 1.2.1 The development site is located on the outskirts of Gravesend, to the north of the A2 with access derived from a dedicated arm of the A227 Wrotham Road / A2 eastbound slip road roundabout. The site location is indicated in **Figure 1.1** below.

Figure 1.1 Site Location



1.3 Existing Land Use

- 1.3.1 The site is currently occupied by the former Tollgate Hotel. When operational, the hotel had a total of 59 bedrooms available for guests. At the present time, the building is unoccupied.

1.4 Planning History

- 1.4.1 The site has been the subject of several planning applications. In 2013 an application was submitted to demolish the hotel and develop an 18-pump petrol filling station (PFS) with drive through restaurant (Application Reference: 20131018). No highways objections were received with respect to the application. It was, however, the subject of a Judicial Review

with queries raised with respect to highways matters. The Highways Agency (now National Highways) assessed the comments raised and did not consider that the application should be refused on highways grounds. The application was withdrawn in 2017.

- 1.4.2 A further application was submitted in 2016 (Application Reference: 20160215) for the development of an 18-pump PFS. The drive through restaurant was, however, removed from this application. No highways objection was received from either the Local or Strategic Highway Authority. An appeal was lodged for non-determination, however, the appeal was withdrawn by the applicant before determination.

1.5 Proposed Development

- 1.5.1 The proposals relate to the demolition of the existing hotel and the provision of an Electric Vehicle (EV) ChargePoint facility with an ancillary sales building (measuring 450sqm) which will contain a small retail facility, café, WCs and seating. In addition to this, a 12-pump petrol filling station (PFS) will be developed on the site. Access to the site will be retained in its existing location, forming a dedicated arm off of the A227 Wrotham Road / A2 eastbound slip roads roundabout.
- 1.5.2 A total of 24 spaces will be provided as part of the ChargePoint facility, with all of the chargers being developed as Ultra-Rapid.
- 1.5.3 To support the proposals, a 33-space car park will be provided, allowing for vehicles seeking access to the ChargePoints to wait until a facility becomes available.
- 1.5.4 In addition, a further four dedicated disabled parking spaces will be provided within the vicinity of the retail facility, with an additional four staff parking bays.

1.6 Pre-Application Discussions

- 1.6.1 Pre-application discussions have been undertaken with Kent County Council Highways and Transportation (KCC H&T) and National Highways (NH) as the Local and Strategic Highway Authorities respectively. The scoping note and associated pre-application correspondence is included at **Appendix A**.
- 1.6.2 It is noted that following the initial pre-application discussions with NH, undertaken in early 2023, further pre-application correspondence has taken place, comprising of a further Technical Note (TN) response (dated 11th July 2024 and included at **Appendix A** also). The TN provides comments on an initial draft of the TA, which included modelling results for the surrounding highway network. Following a review of the additional TN issued, a meeting was arranged with NH on 8th August 2024, where the points raised were discussed in detail.
- 1.6.3 As part of the TN response, several comments regarding the modelling presented were raised. This included confirmation of committed developments within the vicinity of the site. During previous discussions with Gravesham Borough Council (GBC), a list of committed developments was included. However, to ensure that the previously provided list reflects the most up to date position with respect to development within the vicinity of the site, further

discussions with GBC have been completed and a revised list of developments provided. At the time of writing, these developments are currently being reviewed and added to the future year assessment flows as required.

- 1.6.4 In light of the above, this TA does not include full modelling outputs and associated merge and diverge assessments, as the revised committed development review is ongoing. Once this has been completed and the necessary wider updates to the models have been undertaken based on the comments received by NH, a TA Addendum report will be produced. This will outline the modelling results and merge and diverge assessments, seeking to encompass NH's additional comments raised with respect to the modelling also.

1.7 Report Scope

- 1.7.1 Following this introduction, the remainder of the TA is structured as follows:-

- **Section 2** reviews transport related planning policy at national and local levels, demonstrating that the proposals are in compliance;
- **Section 3** describes the existing site and surrounding transport conditions;
- **Section 4** describes the development proposals in detail, including access;
- **Section 5** outlines the trip generation methodology and associated trip distribution and assignment. It details part of the forecast traffic flow methodology, with further information to be provided as part of the TA Addendum (outlined above); and
- **Section 6** provides a summary and conclusion.

2. Policy Context

- 2.1.1 This section will set out details of relevant transport related policies at a national, regional and local level.

2.2 National Planning Policy Framework (NPPF) (2023)

- 2.2.1 A revised National Planning Policy Framework (NPPF) was published by the Department for Levelling Up, Housing and Communities in December 2023. The NPPF seeks, at its core, to achieve sustainable development. It details how sustainable development can be achieved within the planning system, by three overarching objectives, which it notes are interdependent and need to be pursued in mutually supportive ways. The three key objectives are:-

*“a) **An economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*

*b) **A social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and*

*c) **An environmental objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy”.*

- 2.2.2 The NPPF notes, however, that:-

“These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account, to reflect the character, needs and opportunities of each area”.

- 2.2.3 With respect to transport considerations, Chapter 9 of to NPPF seeks to promote sustainable transport measures. In this regard, Paragraph 114 states that:-

“In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:

*a) **Appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;***

b) Safe and suitable access to the site can be achieved for all users;

c) The design of streets, parking areas, other transport elements and the content of associated standards reflects current national guidance, including the National Design Guide and the National Model Design Code; and

d) Any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree”.

2.2.4 Paragraph 115 of the NPPF states that *“development should only be prevented or refused on highways grounds if there would be an unacceptable impact on **highway safety, or the residual cumulative impacts on the road network would be severe**”.*

2.2.5 Within this context, Paragraph 116 of the NPPF states that applications for development should:-

“a) Give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use;

b) Address the needs of people with disabilities and reduced mobility in relation to all modes of transport;

c) Create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;

d) Allow for the efficient delivery of goods, and access by service and emergency vehicles; and

e) Be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations”.

2.2.6 Finally, Paragraph 117 of the NPPF goes onto detail that *“all developments that will generate significant amounts of movement should be required to provide a travel plan, and the application should be supported by a transport statement or transport assessment so that the likely impacts of the proposal can be assessed”.*

2.3 Planning Practice Guidance (PPG) (2014)

2.3.1 Planning Practice Guidance (PPG) was launched by the Department for Communities and Local Government on 6th March 2014. It provides advice on when Transport Assessments and Statements are required and what they should contain:-

“Transport Assessments are thorough assessments of the transport implications of development, and Transport Statements are a ‘lighter-touch’ evaluation to be used where this would be more proportionate to the potential impact of the development (i.e. in the case of developments with anticipated limited transport impacts).”

2.3.2 Furthermore, it states that:-

“Transport Assessments and Statements can be used to establish whether the residual transport impacts of a proposed development are likely to be “severe”, which may be a reason for refusal, in accordance with the National Planning Policy Framework.”

2.3.3 And:-

“The Transport Assessment or Transport Statement may propose mitigation measures where these are necessary to avoid unacceptable or “severe” impacts.”

2.4 Department for Transport’s (DfT) Circular 01/2022 – Strategic Road Network and Delivery of Sustainable Development

2.4.1 The DfT’s Circular 01/2022 replaces the previous Circular 02/2013. The Circular is the policy of the Secretary of State in relation to the Strategic Road Network (SRN) and outlines how the company will engage with the development industry, public bodies and communities to assist the delivery of sustainable development.

2.4.2 The document conforms with the principles of sustainable development, the overarching and core theme for all planning decisions. Alongside this, it notes that:-

“The company has an important role to play in the drive towards zero emission transport through its commitment to net zero maintenance and construction emissions by 2040 and net zero road user emissions by 2050, and its role as a statutory consultee in the planning system.”

2.4.3 The document outlines the need for new development to assist in facilitating a reduced need to travel by the private vehicle, by focusing on locations that are or can be made sustainable. It also states that walking, wheeling, cycling and public transport should be the natural first choice for when journeys need to be undertaken, as opposed to the private car.

2.4.4 With respect to the SRN itself, it is noted that:-

“Capacity enhancements such as modifications to existing junctions or road widening to facilitate development should be determined on a case-by-case basis. The general principle should be accepted where proposals would include measures to improve community connectivity and public transport accessibility, and this will be weighed against any negative safety, traffic flow, environmental and deliverability considerations, impacts on the permeability and attractiveness of local walking, wheeling and cycling routes, and alternative options to manage down the traffic

impact of planned development or improve the local road network as a first preference.”

- 2.4.5 It goes onto acknowledge that the Design Manual for Roads and Bridges (DMRB) outlines the relevant requirements in terms of access, design and the audit process for any amendments to the SRN.
- 2.4.6 With respect to the assessment of development proposals, it is strongly recommended that early discussions are undertaken with NH to understand any implications of the development for the SRN. The guidance further states that:-

“Where a transport assessment is required, this should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum design and transport infrastructure to realise this vision. Where such development has not been identified in an up-to-date development plan (or an emerging plan that is at an advanced stage), developers should demonstrate that the development would be located in an area of high accessibility by sustainable transport modes and would not create a significant constraint to the delivery of any planned improvements to the transport network or allocated sites.

A transport assessment for consideration by the company must also consider existing and forecast levels of traffic on the SRN, alongside any additional trips from committed developments that would impact on the same sections (link or junction) as the proposed development. Assumptions underpinning projected levels of traffic should be clearly stated to avoid the default factoring up of baseline traffic. The scenario(s) to be assessed, which depending on the development and local circumstances may include sensitivity testing, should be agreed with the company; where a scenario with particularly high or low growth is proposed, this should be supported by appropriate evidence. Planned improvements to the SRN or local road network should also be considered in any assessment where there is a high degree of certainty that this will be delivered.

An opening year assessment to include trips generated by the proposed development, forecasted growth and committed development shall be carried out to establish the residual transport impacts of a proposed development. For multi-phase developments, additional assessments shall be provided based on the opening of each phase.”

- 2.4.7 Following the review of the development impacts, should an unacceptable impact arise from the development proposals or the residual cumulative impacts on the SRN would be severe, then transport improvements will need to be considered. Should it be considered that a different intervention is required, that would better address wider cumulative development impacts, NH will seek to work with the LPA and developer to explore a cost sharing mechanism or phased delivery for a more comprehensive scheme, as appropriate.
- 2.4.8 The guidance also goes onto support the development for parking provisions of zero emission and hybrid vehicles. It notes that:-

“Operators of motorway and APTR service areas must support the uptake of zero emission and hybrid vehicles through the installation of EV chargepoints at their sites. All chargepoints should be user-friendly and accessible. In this regard, operators are expected to adhere to user-centred design principles: providing easy-to-read prices in p/kWh that do not fluctuate once charging sessions have started; ensure that chargepoints are working all year round; and provide free 24/7 helplines for users. Due consideration should be given for some chargepoints being located where they can be safely accessed by a recovery vehicle and car towing a caravan.”

2.5 Road Investment Strategy 2: 2020-2025

2.5.1 The Road Investment Strategy 2 sets out the Government’s commitment and funding for the period of 2020-2025 to improve the strategic road network (SRN). The Government’s vision for the SRN in 2050 covers five main areas with the associated deliverables to achieve the vision elements detailed also:-

- **Developing a network that supports the economy**
 - Provided places where people want to live;
 - Supporting economic growth and productivity; and
 - Develop enterprise and skills.
- **Developing a greener network**
 - Tackling emissions; and
 - Improving the environment now, which includes measures to reduce noise and pollution as well as improving biodiversity, severance and accident woodland impacts.
- **Providing a safer and more reliable network**
 - Improving safety;
 - Enhancing the reliability and resilience of the network;
 - Designing infrastructure wisely;
 - Provision of suitable road standards; and
 - Making sure the geographic extent of the SRN better matches its purpose.
- **Developing a more integrated network**
 - Meeting the needs of specific user groups;
 - Provision for freight and logistics;
 - Highlighting the importance of the private vehicle for disabled users;
 - Accommodating the requirement for public transport users; and
 - Accommodating the needs of cyclists, pedestrians and equestrians.
- **Developing a smarter network**

- 2.5.2 With respect to specific infrastructure upgrades planned for within the site vicinity, it is noted that the key infrastructure development is the provision of the Lower Thames Crossing, which is currently the subject of a Development Consent Order (DCO). This crossing will provide a new link between Kent and Essex, with supporting roads linking to the M25, A13 and M2.
- 2.5.3 The road investment strategy acknowledges that as part of this plan period, commitments to the delivery of this new connection will be made, with infrastructure associated with this new crossing to be started. The delivery of the Lower Thames Crossing will impact vehicle movements for the A2 within the vicinity of the site, alleviating congestion associated with the Dartford Crossing by offering an alternative route for users.

2.6 Design Manual for Roads and Bridges (DMRB)

- 2.6.1 The Design Manual for Roads and Bridges (DMRB) is:-

“A suite of documents which contains requirements and advice relating to works on motorway and all-purpose trunk roads for which one of the Overseeing Organisations is highway or road authority.

The DMRB embodies the collective experience of the Overseeing Organisations, their agents, supply chain members and industry bodies. It provides requirements and advice resulting from research, practical experience of constructing and operating motorway and all-purpose trunk roads, and from delivering compliance to legislative requirements.”

- 2.6.2 It is noted that where works are proposed on motorways or all-purpose trunk roads, on land that is owned, leased or managed by NH, the standards outlined within the DMRB must be met. Consideration of the relevant DMRB standards will be provided throughout this TA as required.

2.7 Taking Charge: the Electric Vehicle Infrastructure Strategy (2022)

- 2.7.1 In November 2020, it was announced that the sale of all new petrol / diesel cars and vans would cease in 2030. This document outlines the Government’s strategy to support the uptake of Electric Vehicles (EVs), ensuring sufficient charging infrastructure to allow the continued uptake of EVs and to ensure that supply of charging infrastructure accommodates future demand.
- 2.7.2 The vision of the Government is to:-

“Remove charging infrastructure as both a perceived, and a real, barrier to the adoption of electric vehicles (EVs).”

- 2.7.3 It is expected that by 2030, there will be around 300,000 public charge points within the UK, though this could potentially be double this figure, depending on future roll out.

2.7.4 To ensure the viability of EVs in the future the document acknowledges that the UK must be a place where:-

- *“Everyone can find and access reliable public chargepoints wherever they live;*
- *Effortless on and off-street charging for private and commercial drivers;*
- *Fairly priced and inclusively designed public charging;*
- *Market-led rollout for the majority of chargepoints;*
- *Infrastructure is seamlessly integrated into a smart energy system; and*
- *Continued innovation to meet drivers’ needs.”*

2.7.5 The proposed development seeks to support the Government’s ambitions with respect to the provision of reliable public ChargePoints, contributing towards the target of 300,000 ChargePoints by 2030.

2.8 Local Transport Plan 4 (LTP4): Delivering Growth without Gridlock 2016-2031

2.8.1 The plan, developed by KCC for the period of 2016-2031, outlines how the County Council will seek to meet the transport needs of Kent. The key ambition for Kent is:-

“To deliver safe and effective transport, ensuring that all Kent’s communities and businesses benefit, the environment is enhanced and economic growth is supported.”

2.8.2 In order to realise this ambition, the Plan outlines five overarching policies:-

“Outcome 1: Economic growth and minimised congestion

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.*

Outcome 2: Affordable and accessible door-to-door journeys

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

Outcome 3: Safer travel

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.*

Outcome 4: Enhanced environment

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

Outcome 5: Better health and wellbeing

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."

2.9 Gravesham Local Plan Core Strategy

2.9.1 The Core Strategy, adopted in September 2014, is the principal document within Gravesham's Local Plan and details the Borough's main policy objectives up to 2028.

2.9.2 To achieve the spatial vision for the Borough, several strategic objectives regarding transport considerations are outlined:-

"Strategic Objective 7 – enhance the Borough's public transport network to serve existing and new neighbourhoods and communities in Gravesend, Northfleet and Ebbsfleet.

Strategic Objective 15 – improve opportunities for recreation, sport, walking and cycling.

Strategic Objective 17 – increase accessibility, minimise congestion and improve air quality through the improved provision of local public transport and the provision of local jobs and services."

2.9.3 With respect to additional transport considerations, Policy CS11 outlines that:-

"New developments should mitigate their impact on the highway and public transport networks as required. As appropriate, transport assessments and travel plans should be provided and implemented to ensure the delivery of travel choice and sustainable opportunities for travel. Transport assessment work is required to be undertaken in accordance with national and local policy guidance, and to identify detailed highway and public transport network requirements and management arising from the development.

Sufficient parking in new development will be provided in accordance with adopted parking standards which will reflect the availability of alternative means of transport and accessibility to services and facilities.

The Council will seek improvements to walking and cycling facilities and networks in the Borough including provision in new development as appropriate."

2.10 Gravesham Local Plan First Review (saved policies)

2.10.1 As detailed, the Core Strategy forms the primary document within Gravesham's adopted Local Plan. However, several policies were 'saved' by the Secretary of State from Gravesham's previous Local Plan, which remain applicable when considering planning applications.

2.10.2 With respect to transport elements, the following saved policies remain relevant:-

“Policy T1 - The Local Planning and Highway Authorities will consider the impact on the transport system and on the environment of traffic generated by new development and will wish to ensure that all proposed developments are adequately served by the highway network identified on the Proposals Map.

Policy T2 - The Local Planning and Highway Authorities will seek to channel all traffic travelling through Gravesham on to the primary road network and to channel traffic between and within residential, industrial and principal business districts of the Borough onto the district distributors.

Policy T3 - The Local Planning and Highway Authorities will not normally permit any proposed development that generates significant volumes of commercial vehicle traffic, if it is not well related to the primary and district distributor network.

Policy T5 - The formation of new accesses or the intensification of use of existing accesses to the roads forming the highway network shown on the Proposals Map, will not normally be permitted, except where no danger would arise and where a properly formed access can be created in a location and to a standard acceptable to the Local Planning and Highway Authorities.”

2.11 Parking Policy

2.11.1 Non-residential parking standards are outlined within the ‘Kent and Medway Structure Plan: Supplementary Planning Guidance Note (SPG) 4’. Maximum vehicle parking standards are outlined for cafes, non-food retail facilities and petrol filling stations. The associated standards are outlined below:-

- **Cafes** – 1 space per two staff plus 1 space per 6sqm (with adequate facilities to enable delivery vehicles to park and manoeuvre clear of the public highway);
- **Non-food retail** – 1 space per 25sqm plus one space per 500sqm for goods vehicles; and
- **Petrol filling station** – 1 space per 20sqm (applies to the retail areas only and not to the filling forecourt).

2.11.2 As detailed above, the onsite retail / café facility is to be provided as an ancillary use to the ChargePoint facility and PFS. As a result of this, it is considered that the demand for the retail / café unit will stem from users of the primary land uses proposed, as opposed to the facility being a dedicated trip generator.

2.11.3 In light of this, it is considered that the onsite parking should be assessed using a ‘first principles’ assessment, giving consideration to the site operations. The 33 customer parking spaces proposed allow for a minimum of one waiting vehicle per EV bay wishing to access the ChargePoint to park within the site confines. Once available, they will charge their vehicle and likely seek to utilise the ancillary uses provided, with charging times being a minimum of 20 minutes, depending on the charger type. Assuming 24 of the bays are occupied (based on

the 24 EV bays proposed), a further nine spaces would be available for the needs of any persons wishing to access the retail facility outside of the ChargePoint or PFS.

- 2.11.4 A total of four staff parking spaces are proposed. Based on discussions with the applicant, it is noted that 23 Full Time Equivalent (FTE) staff will be employed at the site. Of these, it is anticipated that between 8 and 10 would be on site at any given time. On assessment of the site's location within the Middle-Layer Super Output Area (MSOA) Gravesend 009, it is found that for the Census 2011 'Journey to Work' data that 67% of people working within this MSA travel by car, which would equate to between 5 and 7 staff driving to the site.
- 2.11.5 Whilst it is appreciated that this slightly exceeds the number of parking spaces proposed for staff, it is not uncommon for PFS to offer no dedicated parking for staff needs, with staff parking informally within the site confines. It is considered that there is sufficient space within the PFS forecourt to accommodate the staff parking demand on an informal basis as required without obstructing the operation of the site. Moreover, there are additional spaces within the customer car park to accommodate staff as required.
- 2.11.6 For comparison, the onsite parking for the EV facility has been reviewed in the context of two existing and operational EV charging sites located in Braintree (Edison Way, Great Notley, Braintree, CM77 7AP) and Norwich (Maple Way, Postwick, Norwich, NR13 5HB). The sites are considered to offer a suitable comparison to the site under consideration, as both are located within the vicinity of A roads (Braintree is located within the vicinity of the A131, with the site at Norwich lying within the vicinity of both the A1270 and A47) providing ease of access to the wider road network.
- 2.11.7 The table below offers a comparison between the two sites and the proposed development:-

Table 2-1 Parking Comparison

Parking Type	Norwich	Braintree	Proposed Development
Standard Spaces	11	22	37
EV Charging Spaces	33	38	22
Disabled Spaces	1	2	4
EV Disabled Bays	3	2	2
Total	48	64	65

- 2.11.8 The layout has been developed with 37 parking bays (inclusive of four staff parking spaces). It is noted that the onsite parking provision proposed exceeds the parking provided for the other two sites outlined, though it is acknowledged that neither of these sites benefit from a PFS. Given the onsite uses proposed, the above review and the associated comparison of recently constructed sites, it is considered that the onsite parking is suitable for the needs of the site.
- 2.11.9 The level of onsite parking has also been shared and discussed with KCC H&T at the pre-application stage and has been considered to be acceptable for the proposals.

2.11.10 With respect to disabled parking, the standards are shown in **Figure 2.1** below.

Figure 2.1 Disabled Parking Standards

For Employees and Visitors to Business Premises (Land Use Classes A2, B1, B2 & B8)	
Car Parks up to 40 spaces	2 designated spaces + 1 space of sufficient size but not specifically designated.
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
For Shopping, Recreation and Leisure (Land Use Classes A1, A3, A4, A5, C1, D1, D2 & Unclassified)	
Car Parks up to 50 spaces	1 designated space + 2 spaces of sufficient size but not specifically designated.
Car Parks with 50 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
Notes	1. The provision of parking spaces for the mobility impaired will be part of the overall level of parking provision for the development as opposed to an additional requirement. 2. The use of spaces allocated for the mobility impaired should be regularly monitored to ensure that the allocation is correct and that the system is working well.

Source: Kent and Medway Structure Plan SPG4

2.11.11 The site will be developed with four dedicated disabled bays, located within the vicinity of the ancillary retail unit. In addition, two of the EV charging bays will be developed as disabled bays, to ensure the needs of all users are met.

2.11.12 With respect to cycle parking, the standards vary between the land uses:-

- **Cafes** – 1 space per 10 seats (short term), 1 space per 20 seats (long term) with a minimum of 2 spaces to be provided;
- **Non-food retail** – 1 space per 200sqm (applicable to long- and short-term parking needs); and
- **Petrol filling station** – to be considered on an individual basis.

2.11.13 In a similar nature to that detailed above, the onsite uses are not considered to be fully reflective of the standards outlined. Six covered cycle parking spaces are proposed on site, to the west of the ancillary retail unit. This is considered appropriate to accommodate the needs of staff travelling to the site, in the context of the number employed, whilst also allowing for an element of visitor travel, given the proximity of surrounding cycle infrastructure.

2.12 Summary

2.12.1 The development proposals are consistent with the National Planning Policy Framework as well as policies contained within Gravesham Borough Council's Core Strategy and saved policies. The proposals are accessible by sustainable modes and lie within the vicinity of the strategic highway network, in accordance with saved Policy T3.

- 2.12.2 As has been considered above, the onsite parking provision is seen to accord with the anticipated site operations, ensuring the needs of all users are accommodated.
- 2.12.3 Vehicle access to the site will be retained as existing with improvements made to the Site Access arm of the roundabout to facilitate ease of access to the site. Access to existing pedestrian and cycle infrastructure will be incorporated into the site layout, ensuring access by all modes.
- 2.12.4 A review of highway safety has found no pre-existing concerns that could be exacerbated by the development proposals, ensuring safe and suitable access for all users.
- 2.12.5 Given the above, it is not considered that the proposed development will result in any 'severe' highways impacts, in accordance with Paragraph 115 of the NPPF.

3. Existing Site and Baseline Conditions

3.1 Introduction

3.1.1 This section will review the existing site and surrounding context. Local transport conditions will be reviewed including a review of the local highway network and road conditions in the area surrounding the site, with consideration given to site accessibility by walking, cycling and public transport. Analysis of Personal Injury Collision (PIC) data will also be completed, assessing surrounding highway safety considerations.

3.1.2 Following this introduction, this section will include the following:-

- Existing Site
- Pedestrian and Cycle Network
- Public Transport Services
- Local and Strategic Highway Network
- Highway Safety Review

3.1.3 This section provides details with respect to the existing site and current access arrangements.

3.2 Existing Site

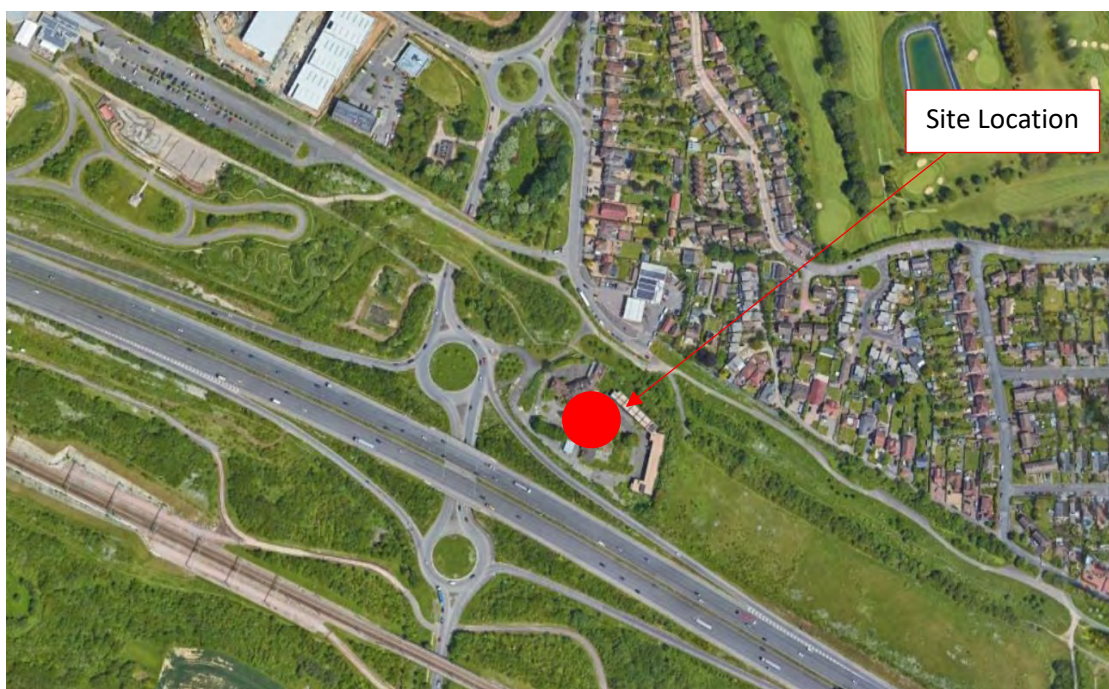
3.2.1 The application site comprises of the former 59-bed Tollgate Hotel. The site is currently unoccupied.

3.2.2 The site is located approximately 2.9km from Gravesend Town Centre and is bound to the south by the A2 eastbound on-slip, while to the west, it is bound by the A227 Wrotham Road / A2 eastbound on and off-slip roundabout. To the east lies undeveloped grassland and to the north, beyond the grassland lies Wrotham Road, from which a Shell petrol station and an associated convenience store are accessed. This PFS has 12-pumps and an ancillary retail centre which includes a SPAR, Subway and hot food takeaway.

3.2.3 Much of the wider area is mixed-use in nature. A significant proportion of land to the north of the site is residential, although commercial uses such as a Travelodge, Toby Carvery and out-of-town retail centre including Tile Station and Screwfix are located to the northwest, some 250m as the crow flies. Across the A227 Wrotham Road / A2 eastbound on and off-slip roundabout, a Cyclopark is present, with Mid Kent Golf Club located around 330m north as the crow flies.

3.2.4 To the south, beyond the A2 dual carriageway, lies the High Speed 1 railway line. Further south, the land is predominantly agricultural, although small settlements including Istead Rise and New Barn are present. The site is shown in a local context in **Figure 3.1**.

Figure 3.1 Local Site Context

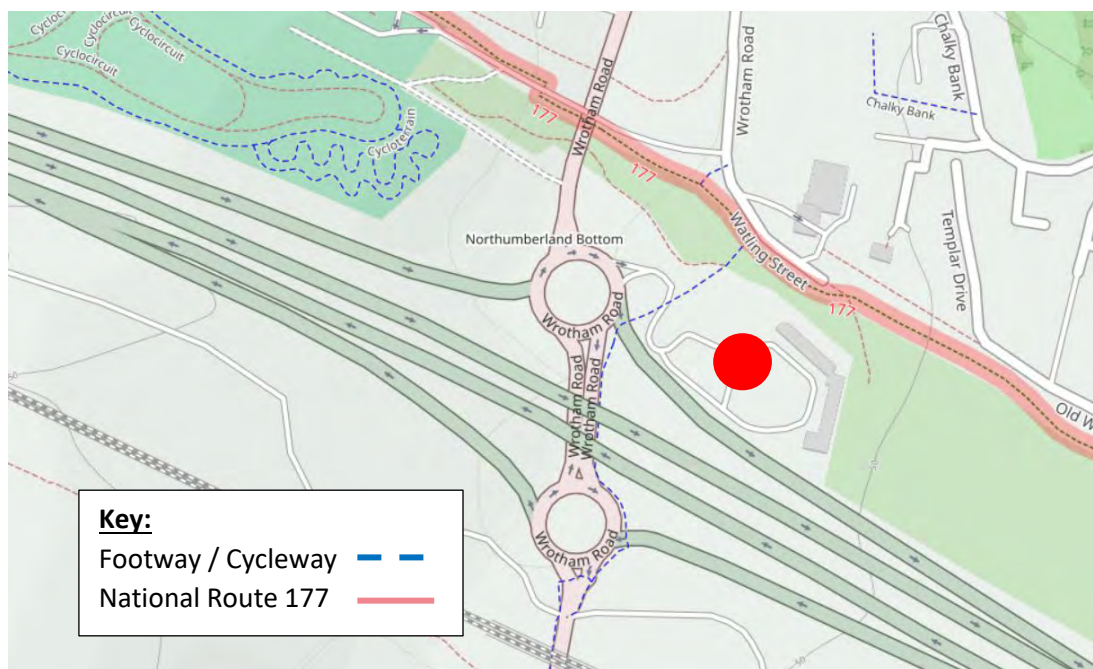


Source: Google Earth

3.3 Pedestrian and Cycle Network

- 3.3.1 A footway is provided to the west of the site, across the frontage on the A227 Wrotham Road / A2 eastbound slip road roundabout. This footway measures 2.0m in width. A dropped kerb, tactile paving crossing facility is in place across the A2 eastbound on slip, connecting with the footway provision to the south of the site, adjoining the A227 Wrotham Road / A2 westbound slip road roundabout. This facility measures 3.0m in width and is provided as a shared footway / cycleway.
- 3.3.2 At the A227 Wrotham Road / A2 westbound slip road roundabout, the shared facility crosses the westbound off slip via a further dropped kerb, tactile paving crossing, with a refuge island crossing provided on the A227 Wrotham Road (south) arm. The footway / cycleway, continuing on the western side of Wrotham Road, provides continuous connectivity to the village of Istead Rise.
- 3.3.3 The site access road is developed with a pedestrian refuge island and associated dropped kerb and tactile paving facilities, continuing northbound along the A227 Wrotham Road. For onwards connectivity, the A227 Wrotham Road (north) arm of the site access roundabout is provided with a pedestrian refuge island crossing, which continues to the A227 Wrotham Road / Wrotham Road / Coldharbour Road roundabout, from with continuous access to the suburbs of Gravesend is provided.
- 3.3.4 Within the site confines, the shared footway / cycleway crosses the site access road, travelling to the north of the site, where it intersects National Cycle Route 177, as shown in **Figure 3.2**.

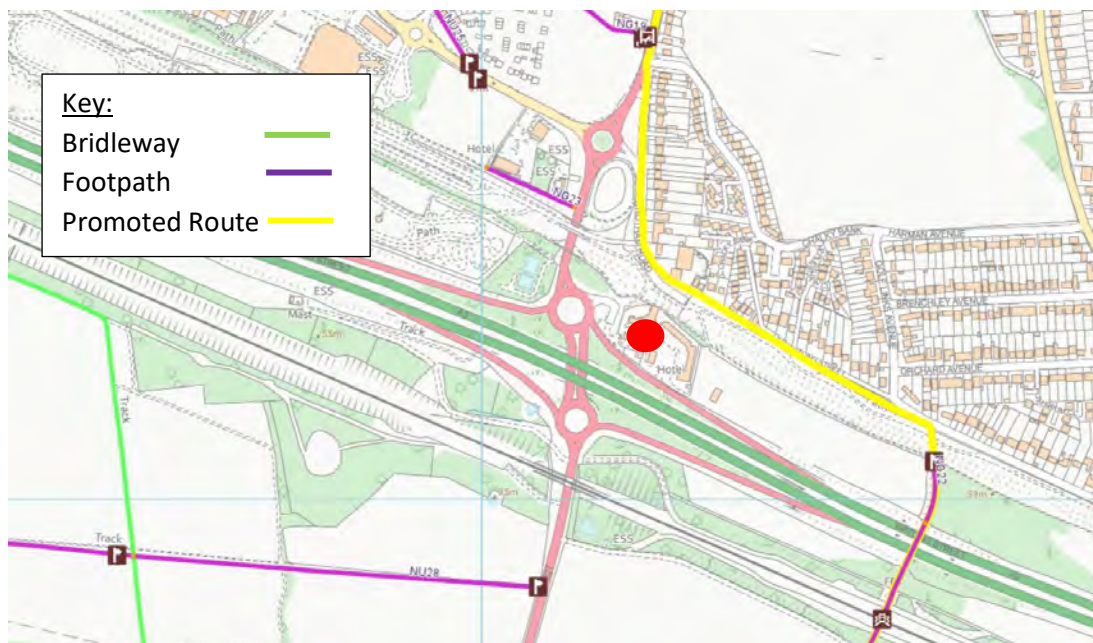
Figure 3.2 Local Cycle Infrastructure



Source: OpenCycleMap

- 3.3.5 Public Rights of Way (PRoW) are shown within the vicinity of the site in **Figure 3.3** below. National Cycle Route 177 and Footpath NG22 form part of a promoted route, continuing to the south of the site and into Sole Street.

Figure 3.3 Local PRoW Network



Source: KCC

3.4 Public Transport Services

- 3.4.1 The closest bus stops to the site are accessed from the A227 Wrotham Road to the north of the site. These stops are accessible within 150m of the site access, taking two minutes on foot. The northbound bus stop is provided with a shelter facility, raised height kerb and painted bus cage within the carriageway. The southbound bus stop is denoted by a flagpole with raised height kerb and dedicated layby.
- 3.4.2 A summary of the bus services accessible from these bus stops is provided in **Table 3-1** below.

Table 3-1 Bus Services and Frequencies

Service	Route	Daily Frequency		
		Weekday	Saturday	Sunday
223	Gravesend – Weald of Kent School	School	N/A	N/A
306	Gravesend – Vigo Village	School	N/A	N/A
308	Gravesend – Sevenoaks	Up to 7 journeys	Up to 7 journeys	N/A
416	Gravesend – Meopham	Up to 5 journeys	Up to 3 journeys	N/A
Meopham1	Denton – Gravesend – Istead Rise – Meopham School	School	N/A	N/A
Vigo1	Vigo – Meopham – Istead Rise – Gravesend Boys' Grammar School	School	N/A	N/A

- 3.4.3 The nearest railway stations to the site are Gravesend and Meopham, 3.9km and 3.4km from the site respectively, taking up to 13 minutes by bicycle or up to 8 minutes by car. From Gravesend and Meopham, Southeastern services are accessible, with Thameslink services also accessible from Gravesend. Services to London Victoria, Dover Priory and Gillingham are accessible from Meopham. Gravesend offers additional services, between Rainham, Faversham, Charing Cross (via Sidcup), Luton and Ramsgate. The station also lies on the High Speed 1 link, providing access to London St Pancras International within 24 minutes.
- 3.4.4 The frequencies for the services outlined at these stations is shown in **Table 3-2**.

Table 3-2 Railway Services and Frequencies

Station	Service	Hourly Frequency
Gravesend	London St Pancras International	Two journeys
	Charing Cross (via Sidcup)	Two journeys
	Rainham (Kent)	Two journeys
	Faversham	One journey
	Luton	Two journeys
	Ramsgate	One journey
Meopham	London Victoria	Two journeys
	Dover Priory	One journey
	Gillingham (Kent)	One journey

3.5 Local and Strategic Highway Network

- 3.5.1 The site is accessed from a dedicated arm of the A227 Wrotham Road / A2 eastbound slip road roundabout. The access road measures approximately 6.0m in width accommodating two-way vehicle movements. The access is currently closed off to prohibit errant access to the site.
- 3.5.2 The A227 Wrotham Road / A2 eastbound slip road roundabout is a five-arm roundabout, which provides access to and from the eastbound carriageway of the A2. To the north, the A227 Wrotham Road measures approximately 9.5m in width and is provided with street lighting across its length. It is subject to a 40mph speed restriction in this location.
- 3.5.3 The A227 continues to the A227 Wrotham Road / Wrotham Road / Coldharbour Road roundabout, where the A227 continues northwards into Gravesend Town Centre. Coldharbour Road routes north westwards providing access to Northfleet with Wortham Road forming a no through route, with access to the Shell PFS and Cyclopark.
- 3.5.4 The A227 Wrotham Road / A2 westbound slip road roundabout lies to the south of the site and takes the form of a four-arm roundabout. Here, the A227 continues south providing access to the villages of Istead Rise, Meopham and Vigo Village. The A227 goes on to intersect the A20, from which onwards connectivity to the M20 at Junction 2 and the M26 at Junction 2a is provided.
- 3.5.5 The A2 takes a general east-west alignment and lies to the south of the site. In the east, the A2 intersects the M2 at Junction 1, providing access to the Medway Towns, Sittingbourne (via Junction 5), Faversham (via Junction 6) and Canterbury (via Junction 7), where the A2 continues to the coastal town of Dover. In the west, the A2 intersects the M25 at Junction 2, providing wider strategic connectivity. From this junction, the A2 continues further west into central London.

- 3.5.6 From the above analysis, it is highlighted that the site benefits from ready access to both the primary and strategic road network, ensuring ease of access for the development proposals.

Recent Highway Improvements

- 3.5.7 As a result of Planning Application 20181271, for the development of a food retail store and B2/B8 facilities, highway improvement works have been completed within the vicinity of the site. With respect to the A227 Wrotham Road / Wrotham Road / Coldharbour Road roundabout, the flare length on the Coldharbour Road arm of the junction has been increased to allow for additional vehicle stacking space on entry to the roundabout. The improvement is shown below in **Figure 3.4**.

Figure 3.4 Coldharbour Road – Capacity Improvement



- 3.5.8 In addition to the above, modifications to the A2 eastbound off slip have been undertaken as part of this development, with an island feature introduced between the two traffic lanes. The nearside lane is signed for left turn only movements, with the offside lane provided for all movements. Both lanes are provided as give-way features. To accommodate this improvement, the northbound lane of the A227 between the A2 roundabout and the Coldharbour Road roundabout, has been increased in width to accommodate two lanes of traffic. These improvement works are shown in **Figure 3.5** and **Figure 3.6**.

Figure 3.5 A227 Wrotham Road – Two Lanes



Figure 3.6 A2 Eastbound Off Slip – Highway Improvement



- 3.5.9 With respect to active and sustainable transport improvements, the pedestrian refuge island on the A227 (north) arm of the A227 Wrotham Road / A2 eastbound slip road roundabout has been enlarged, as shown in **Figure 3.7**.

Figure 3.7 A227 (North) – Pedestrian Refuge Island



- 3.5.10 Finally, the southbound bus stop on the A227 (north) arm has also been relocated from under the bridge and is now provided with a dedicated layby facility and improved footway. This is shown in **Figure 3.8**.

Figure 3.8 A227 (North) – Southbound Bus Stop Improvement



3.6 Highway Safety

- 3.6.1 Personal Injury Collision (PIC) statistics have been obtained from KCC. Following pre-application discussions with NH it was requested that a five-year period be considered outside of the COVID pandemic years. To accommodate this request, the latest seven years

of PIC data has been procured. The incident plot and D-print report are included at **Appendix B**.

- 3.6.2 A total of 34 incidents were reported during this time, of which five were classified as 'serious' and the remaining as 'slight' in severity. A summary of the incidents recorded by location is provided in **Table 3-3** below.

Table 3-3 PIC Summary

Location	Incident Severity		
	Slight	Serious	Fatal
A227 Wrotham Road / Wrotham Road / Coldharbour Road Roundabout	9	2	0
A227 Wrotham Road (North)	1	0	0
Wrotham Road (leading to Cyclopark)	1	0	0
A227 Wrotham Road/A2 eastbound slips roundabout	10	3	0
A227 Wrotham Road/A2 westbound slips roundabout	7	0	0
A2 Mainline	1	0	0
Total	29	5	0

- 3.6.3 A detailed review of the PIC data provided has been completed for each of the locations outlined in **Table 3-3** and is included at **Appendix B** for completeness.
- 3.6.4 Based on the detailed review of the incidents, on review of the causation of the incidents recorded, it is noted that these primarily stem from human error or prevailing weather / road surface conditions. In light of the overarching causation, it is not considered that there are any existing highway safety concerns within the vicinity of the site that could be exacerbated by the proposed development.

4. Development Proposals

- 4.1.1 This section will provide details on the proposed development, including site access, operation and parking provision.

4.2 Development Description

- 4.2.1 The proposals comprise the demolition of the existing Tollgate Hotel, developing a 24 space EV ChargePoint facility and ancillary retail unit (totalling 450sqm). A 12-pump PFS will also be developed on the site, for use by cars and light goods vehicles (LGVs). No heavy goods vehicle (HGV) facilities will be developed onsite.

- 4.2.2 The proposed site layout is included at **Appendix C**.

4.3 Vehicular Access

- 4.3.1 Access to the site will be retained as existing in terms of location, taking the form of a dedicated arm off of the A227 Wrotham Road / A2 eastbound slip road roundabout. To accommodate the proposals, the site access road (within the site confines) will be widened from the existing 6.5m to 10.5m, with an extract of the site access shown in **Figure 4.1**.

Figure 4.1 Site Access



Source: Drawing No. EV005-PS-LAY-000-GB00015044-0005-002 B01 RevG

- 4.3.2 On entry to the site, vehicles can continue along the northern boundary of the site, which will lead to the PFS facility. This road will be developed with a width of between 5.5m and 6.2m to allow for larger vehicles to access the site.

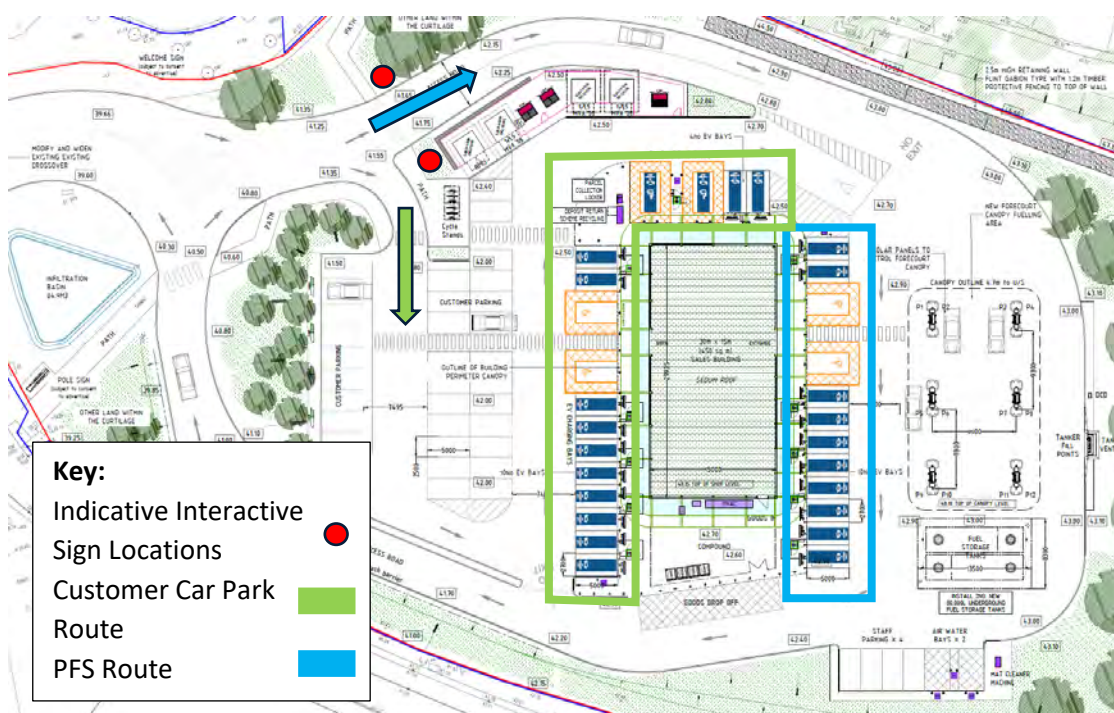
- 4.3.3 On entering the PFS forecourt, users will either be able to pull up to the PFS pumps or continue past the PFS and into the EV charging facility. Charging bays are provided to the west of the PFS and the 10 EV bays and two disabled bays located in this area can be directly accessed from the forecourt area. An aisle width of 7.0m is provided between the rear of the EV charging bays and the PFS forecourt to ensure ease of access.
- 4.3.4 A dedicated right turn access to the customer car park is also provided from the entrance road as users come into the site. From here, users can access the car parking area as well as 14 of the 24 EV charging spaces. An aisle width of 7.5m is provided to allow for ease of access to the EV bays in this location.
- 4.3.5 A further access to this area is provided to the southwest of the EV charging area, accessible from the PFS forecourt. Here, a right turn give way lane is provided prior to the continuation of the exit road to allow vehicles to access this area.
- 4.3.6 For vehicles utilising these 14 EV bays, on exit, vehicles will travel towards the north of the site, re-entering the PFS forecourt. Vehicles will then continue around the forecourt and exit the site via the exit road located to the southwest of the site.
- 4.3.7 Should vehicles be unable to find a free EV charging bay, on exiting the site, a right turn lane is provided to allow vehicles to re-enter the site without interacting with the site access roundabout. Vehicles using this lane will give way to oncoming movements and will be able to re-enter the site either via the northern access (as detailed above) or via the right turn side arm lane which enters the customer car park. Should vehicles use the right turn lane, they will enter a one-way arrangement continuing into the customer car park and EV charging facility. The customer car park is provided with an aisle width of 6.5m.

4.4 EV Charging Circulation and Management

- 4.4.1 To ensure the efficiency of onsite movements with respect to the EV charging facility, signage and wayfinding measures will be provided within the curtilage of the site.
- 4.4.2 On entry to the site, an interactive sign will be provided which highlights to potential users of the EV charging station the current availability of charging spaces. From this, users will be able to make an informed decision as to whether they wish to stop at this location on their journey.
- 4.4.3 Within the site confines, additional signage will be provided to direct customers through the site. It is proposed that a further sign(s) would be provided at the entrance to the customer car park area from the main entrance road. Given the circulation of the site, it is considered that this entrance naturally provides access to 14 of the 24 EV spaces proposed, with access to the remaining 10 spaces more easily achieved by continuing towards the PFS. It is proposed that the sign(s) would highlight the two routes to users, indicating the availability of spaces in each direction, ensuring the efficient movement of users within the site.
- 4.4.4 Should no spaces be available, then the signage will highlight to EV users that they should seek to park in the customer car park, whilst they wait for a space to become free.

- 4.4.5 If users fail to turn into the customer car park on entry to the site, they will have several additional opportunities to reach this area within the site. A further access is provided to the southwest of the EV facility, accessible via the PFS forecourt. Additionally, continuing towards the site exit, a dedicated right turn lane is provided, which connects with the entrance road to the site, allowing users to re-enter the car park, without leaving the site confines.
- 4.4.6 The proposed circulation of the site, based on the presence of the interactive signage, is highlighted in **Figure 4.2** below for clarity. The colours of the arrows accord with the colouring of the parking spaces highlighted to indicate the routes taken to these spaces.

Figure 4.2 EV Vehicle Circulation Plan



Source: Drawing Number EV005-PS-LAY-000-GB00015044-0005-001 B01

- 4.4.7 In addition to the above, to help users identify when a space becomes available, it is noted that the BP app has existing functionality which shows available charging spaces. When a space then becomes free, customers can be notified of this and directed to the corresponding space.
- 4.4.8 With respect to onsite management, it is also important to note that with the continued uptake of EVs the need for the PFS will diminish in time. As such, when the full demand for the EV facility is reached it is possible that the PFS will be removed, offering greater space for the operation of the EV charging facility. Additionally, as EVs become commonplace, greater choice in facilities will occur, ensuring that demand for charging is accommodated at a wider variety of locations, which will ensure that the demand is spread as opposed to concentrated in particular areas.

- 4.4.9 Given the above, it is considered that the internal arrangement of the site can be suitably managed to ensure the charging needs of EVs are met, without any adverse impact to the surrounding highway network.
- 4.4.10 Additionally, it is envisaged that an interactive sign would be placed on the site access which would outline the number of charging spaces currently available to guide drivers accordingly as to the capacity of the site to accommodate their charging needs.

4.5 Pedestrian and Cycle Access

- 4.5.1 At the site access, the footway and pedestrian refuge island will be retained. The dropped kerb, tactile paving crossing in place on the A2 eastbound on slip will be retained and the existing path which enters the site at this location will also be retained.
- 4.5.2 In accordance with guidance received from KCC H&T, the path, which routes from the south of the site to the north of the site where it connects with National Cycle Route 177, will be developed with a width of 3.0m, to provide and maintain the existing cycle route present in this location. The 3.0m facility will act as a shared footway / cycleway in-keeping with surrounding cycle provision on the A227 to the south of the site.
- 4.5.3 The path will also continue into the site confines, providing access to the retail facility. Several zebra crossings will be installed across the internal aisles to delineate pedestrian access from the footway / cycleway and from the customer car parking area.
- 4.5.4 The 3.0m spacing between the EV charging bays and the ancillary retail facility provided will allow for customers to access the retail facility from the PFS forecourt and EV ChargePoints, with dedicated pedestrian crossings shown from the customer car park and PFS.

4.6 Parking

- 4.6.1 A total of 41 parking spaces are proposed on site. Of these, four will be provided for staff parking needs with the remaining spaces being for customer needs. This figure also includes four dedicated disabled spaces, to be provided within the vicinity of the ancillary retail provision. A further 24 EV charging bays will be provided (of which two will be dedicated for disabled users). These chargers will be provided as Ultra-Rapid.
- 4.6.2 All standard bays will be provided with dimensions of 2.5m by 5.0m. All EV bays have been developed with dimensions of 2.7m by 5.0m. This ensures access for all users is maintained for these facilities.
- 4.6.3 The disabled parking spaces are provided as standard spaces, with an additional buffer on both sides of the space and to the rear of the space, measuring 1.2m in width.
- 4.6.4 The onsite parking has been considered as part of Section 2 of this TA and is considered suitable in the context of the onsite needs and other similar facilities.
- 4.6.5 A total of six covered cycle parking spaces will be provided for staff and visitors to the site. These will be provided to the west of the retail facility. Given the number of staff to be onsite

at any given time (between 8 and 10) and the nature of the onsite uses, it is considered that this level of parking is suitable for the proposals. Sufficient space is provided around the cycle parking provision and within the site generally for future expansion, should demand require it.

4.7 Site Servicing

- 4.7.1 Refuse storage is located within the compound to the south of the retail facility. Refuse vehicles will be able to utilise the hatched area indicated to the south of the retail unit for servicing purposes. Similarly, this area will also be utilised by delivery vehicles associated with the café / retail facility. The location of the servicing area ensures vehicles are away from the main circulation of the site, maintaining access to the EV charging facilities and the site exit whilst servicing takes place.
- 4.7.2 For the PFS, the tanker fill points are located on the eastern side of the forecourt. The tanker will be able to park within the eastern aisle of the forecourt to re-fill the tankers. Due to the onsite facilities, unlike standard PFSs which tend to cease operation for refuelling purposes, it is envisaged that vehicles will still be able to access the EV charging facilities during this time, using the western aisle of the forecourt or the right turn lane on entry to the site. It is envisaged that the necessary cordon would be provided during these times to ensure drivers were aware of the access arrangement.
- 4.7.3 Swept path analysis has been completed for the site layout. Consideration has been given to a fuel tanker, refuse vehicle, delivery vehicle and estate car. The associated plans are included at **Appendix D**.
- 4.7.4 The swept path analysis drawings demonstrate the suitability of the site layout to accommodate the needs of all vehicles, ensuring all are able to enter and exit the proposed development in a forward gear.

4.8 Construction

- 4.8.1 NH within their pre-application response have noted the requirement for a Construction Environmental Management Plan (CEMP) to be provided in support of the proposals. The applicant is willing to accept a condition on any grant of consent that requires the submission and approval of a CEMP prior to commencement of any construction activities.

5. Traffic Flow Forecasts

5.1 Overview

- 5.1.1 This section outlines the methodology employed to calculate the likely vehicle trip generation, distribution and assignment of the proposed development. In light of the former use of the site, which comprises of the Tollgate Hotel, consideration has been given to the trip generating potential of the former use, to understand the residual implications of the proposals.
- 5.1.2 In addition, this section also outlines methodology for assessing the future traffic flow forecasts, from which the impacts of the development will be considered.

5.2 Existing Trip Generation

- 5.2.1 The site is occupied by a vacant hotel building with 59 bedrooms. The planning permission for this site remains extant and it could be re-occupied. Estimates of the trip generation for the existing use on site were previously identified as part of Application Reference: 20131018 and these are summarised in **Table 5-1**.

Table 5-1 Hotel Trips – Application 20131018 (59 Bedrooms)

Time Period	Arrivals	Departures	Total
Weekday AM Peak (08:00-09:00)	15	18	33
Weekday PM Peak (17:00-18:00)	26	46	72

- 5.2.2 Given the timing of the previous application, a revised trip assessment has been completed, to ensure that the trip generation of the hotel is representative. A TRICS assessment was completed using the category *'06 Hotel, Food and Drink, A – Hotels'*. Sites outside of London, within England, Scotland and Wales were considered in Neighbourhood Centre, Edge of Town and Suburban locations. Any surveys conducted during COVID conditions were removed from consideration. On review of the site's selected it is considered that the surveys offer a suitable assessment of the site.
- 5.2.3 The resulting TRICS trip rates are detailed in **Table 5-2**, with the full TRICS reports discussed in this section, included at **Appendix E**.

Table 5-2 Hotel Trip Rates and Trip Generation (59 Bedrooms)

Time Period	Trip Rates		
	Arrivals	Departures	Total
Weekday AM Peak (08:00-09:00)	0.088	0.186	0.274
Weekday PM Peak (17:00-18:00)	0.236	0.152	0.388
Trip Generation			
Weekday AM Peak (08:00-09:00)	5	11	16
Weekday PM Peak (17:00-18:00)	14	9	23

- 5.2.4 The revised trip assessment for the hotel indicates that 16 vehicle movements would take place during the AM peak with 23 taking place in the PM peak. These flows will be utilised as part of the assessment methodology, to establish the residual trip impact of the proposed development.

5.3 Proposed Trip Generation

EV ChargePoints

- 5.3.1 The TRICS database does not have proxy sites for EV charging forecourts, as these are new land uses. It has therefore been necessary to undertake surveys at two existing EV charging hubs that are operational. Both are operated by Gridserve and are located adjacent to A roads near Braintree, Essex (CM77 7AP) and Norwich, Norfolk (NR13 5HB).
- 5.3.2 Details of the facilities at these sites, the survey output and calculation of vehicle trip rate per charge point can be found in **Appendix F**. The trip rates and trip generation based on the 24 charge points proposed can be seen in **Table 5-3**.

Table 5-3 EV Charging Hub Trip Rates and Generation

Time Period	Trip Rates		
	Arrivals	Departures	Total
Weekday AM Peak (08:00-09:00)	0.816	0.618	1.434
Weekday PM Peak (17:00-18:00)	0.579	0.632	1.211
Daily (06:00-00:00)	10.263	10.289	20.553
Trip Generation			
Weekday AM Peak (08:00-09:00)	20	15	35
Weekday PM Peak (17:00-18:00)	14	15	29
Daily (06:00-00:00)	246	247	493

- 5.3.3 The EV charging hub would therefore be expected to generation 35 vehicle trips in the AM peak hour, 29 in the PM peak and 493 trips in a typical day.

Traditional PFS

- 5.3.4 To establish the trip generating potential of the PFS, a review of the TRICS trip rate database has been completed. The category '13 – Petrol Filling Stations, B – PFS – with retail' was utilised, assessing sites outside of London, within England, Scotland and Wales. This category is considered suitable in light of the ancillary uses proposed on site. Sites were considered in Neighbourhood Centre, Edge of Town and Suburban locations and subsequently refined based on proximity to the primary A road network. Any surveys conducted during COVID conditions were removed from consideration. Additionally, if any sites were associated with a large retail facility, namely a supermarket, these were removed. Finally, it is noted that several sites fall within slightly more suburban environments than the site under consideration. It is, however, noted that the site lies within close proximity to the suburbs of Gravesend with a proportion of trips likely to originate from this location. Therefore, these have been retained.
- 5.3.5 The resulting TRICS trip rates and trip generation are detailed in **Table 5-4**, with the full TRICS report included at **Appendix E**. The figures shown in bold brackets denote the number of OGV movements associated with this element of the site, as these have been considered separately as part of the assessment methodology outlined later in this TA.
- 5.3.6 Whilst no dedicated HGV facilities will be provided for the PFS, smaller OGVs will still be able to utilise the filling points provided. Please note any inaccuracies are the resulting of rounding in MS Excel.

Table 5-4 PFS Trip Rates and Trip Generation (12 Pumps)

Time Period	Trip Rates		
	Arrivals	Departures	Total
Weekday AM Peak (08:00-09:00)	7.652 (0.217)	7.489 (0.196)	15.141 (0.413)
Weekday PM Peak (17:00-18:00)	8.565 (0.109)	8.457 (0.098)	17.022 (0.207)
Daily (06:00-00:00)	113.960 (2.774)	114.161 (2.762)	228.121 (5.536)
Trip Generation			
Weekday AM Peak (08:00-09:00)	92 (3)	90 (2)	182 (5)
Weekday PM Peak (17:00-18:00)	103 (1)	101 (1)	204 (2)
Daily (06:00-00:00)	1,368 (33)	1,370 (33)	2,737 (66)

- 5.3.7 The resulting trip generation results in a total of 182 trips in the AM peak and 204 in the PM peak. Of these trips, during the AM peak five would be OGVs with two OGV trips taking place in the PM peak.

Total Trip Generation

- 5.3.8 Taking the above methodology, the total peak trip generation for the site is outlined in **Table 5-5** below.

Table 5-5 Total Trip Generation – EV ChargePoints and PFS

Time Period	Arrivals	Departures	Total
Weekday AM Peak (08:00-09:00)	112 (3)	105 (2)	217 (5)
Weekday PM Peak (17:00-18:00)	117 (1)	116 (1)	233 (2)

- 5.3.9 The trip generation detailed above will be utilised for the purposes of the assessment for the site. It is noted that the trip generation detailed above has been shared with both KCC H&T and NH as part of the pre-application discussions. Both parties have agreed the trip generation detailed above, ensuring the suitability for further assessment.

5.4 Trip Distribution and Assignment

- 5.4.1 For the site distribution, the following methodology has been applied:-

- All trips will be existing trips in the network;
- The distribution will be provided in line with existing turning counts at the wider junctions to establish the proportion of vehicles travelling to and from the site; and
- For the EV charging points, these are intended to meet the needs of strategic long-distance trips, rather than to cater for trips with a local origin or destination (these would need to be catered for by slower charge facilities on-street or within residential curtilages). As part of discussions with NH and KCC regarding distribution of EV charging trips it was agreed that it should be assumed that 80% of vehicles using the facility divert off of the A2, with the remaining 20% having an origin or destination in Gravesend.

- 5.4.2 The above is considered suitable given evidence presented by the DfT which assessed the use of the SRN¹. This indicated that 47% of the vehicle miles driven on the SRN were covered by vehicles making trips of more than 25 miles, highlighting the long-distance nature of trips made using the SRN.

- 5.4.3 As all trips are considered to be existing trips on the network, all movements associated with both elements of the site will take the form of either pass by or diverted movements.

- 5.4.4 For the EV facility, the basis of the distribution assessment has been undertaken assuming 20% local trips (which are assumed to originate and return to Gravesend, where there is a large proportion of terrace housing within the suburbs) with the remaining 80% travelling

¹ Please see: <https://assets.publishing.service.gov.uk/media/5a7f8aa8e5274a2e87db678a/strategic-road-network-statistics.pdf>

from and to the SRN. To inform the split of movements on the network, use has been made of the Manual Classified Count (MCC) data conducted at the following junctions:-

- A227 Wrotham Road / Coldharbour Road / Wrotham Road roundabout;
- A227 Wrotham Road / A2 eastbound slips roundabout; and
- A227 Wrotham Road / A2 westbound slips roundabout.

- 5.4.5 Additionally, for the A2 flows, use has also been made of the mainline flows on the carriageway to understand the flow of movement between east and westbound trips in the peak periods. Further discussion of how these flows have been derived is detailed later in this TA.
- 5.4.6 Using the turning count data and the proportion of movements agreed as part of the pre-application discussions, the trips have been assigned to the network. For the AM peak, it has been assumed that local vehicles will travel from Gravesend and into the site, thereafter, leaving the site and continuing onto the SRN as part of their ongoing journey. The inverse has been assumed for the PM peak, with arrivals coming to the site from the SRN and returning to Gravesend. It has been assumed that the same proportion of movements that enter the site, leave the site during the peak periods.
- 5.4.7 For vehicles routeing from the SRN, it is assumed that the same proportion that enters the site, leaves the site via the same route.
- 5.4.8 With respect to the PFS, the total link movements have been used to assign the proportion of movements on each arm of the junction, to enable an understanding of the local / strategic trip separation. For the localised trips, the A227 (S) arm (leading to Istead Rise) has been included as part of the assessment. In a similar manner to the EV facility, for the AM peak it is assumed that vehicles arriving to the site will do so from the local network and will then depart via the SRN. During the PM peak, the inverse is assumed, with the same proportion of arrivals and departures being assigned to the network for consistency.
- 5.4.9 For the OGV element of the PFS, it has been assumed that all vehicles route to and from the SRN, given the strategic nature of the A2 for OGV movements.
- 5.4.10 A detailed breakdown of the trip distribution and resulting development trip assignment is included in **Appendix G**. The traffic flow diagrams show the percentage distribution for arrivals and departures for each land use within each of the peak periods. The resulting trip distribution is shown for each of the onsite uses and for the site as a whole.
- 5.4.11 Due to the existing nature of the trips under assessment, there are several locations where the flows will decrease as they divert into the site. These locations are shown in red within the attached traffic flow diagrams for clarity.
- 5.4.12 On assessment of the trip distribution, it is noted that the primary impact of the development arises at the A227 Wrotham Road / A2 eastbound slips roundabout and A227 Wrotham Road / A2 westbound slips roundabout, as a result of diversions from the A2 and the redirection of localised trips.

- 5.4.13 With respect to the hotel trips, for the residual sensitivity assessment, it is considered that customers will likely have used the hotel as a rest stop as part of a long-distance journey. Therefore, for distribution purposes, it has been assumed that trips will originate from and return to the SRN. The slip road flows for the A2 have been used to assign the proportion of trips for this land use. The resulting distribution and associated trips are shown in **Appendix H**.

5.5 Study Network

- 5.5.1 The network under assessment was agreed with both NH and KCC H&T as part of the pre-application discussions. It comprises of the following junctions:-
- A227 Wrotham Road / Coldharbour Road / Wrotham Road roundabout;
 - A227 Wrotham Road / A2 eastbound slip road roundabout; and
 - A227 Wrotham Road / A2 westbound slip road roundabout.
- 5.5.2 MCC surveys have been completed at the locations detailed, with the full survey data included at **Appendix I**. For the purposes of the assessments presented, the assessments have been completed in vehicles as opposed to Passenger Car Units (PCUs), with the HGV percentage identified where required.

5.6 Assessment Scenarios

- 5.6.1 The peak hours selected for the assessment are as follows:-
- AM Peak – 08:00 to 09:00
 - PM Peak – 17:00 to 18:00.
- 5.6.2 Following pre-application discussions with KCC H&T it was noted that the peak development impact lies outside of the standard network peak periods. KCC H&T therefore requested that consideration be given to the peak impact of the development in the context of the wider network flows, to ensure the suitability of the AM and PM peak assessments proposed.
- 5.6.3 For clarity, the trip generation for the proposed development for both the EV charging facility and the PFS across the day is shown in **Table 5-6** to **Table 5-8**, with the peak hour (12:00-13:00) highlighted for ease of reference.

Table 5-6 EV Charging Facility – Trip Generation

Time Period	Arrivals	Departures	Total	Arrivals	Departures	Total
06:00-07:00	0.250	0.237	0.487	6	6	12
07:00-08:00	0.539	0.421	0.961	13	10	23
08:00-09:00	0.816	0.618	1.434	20	15	34
09:00-10:00	0.961	0.855	1.816	23	21	44
10:00-11:00	0.697	0.618	1.316	17	15	32
11:00-12:00	0.961	0.855	1.816	23	21	44
12:00-13:00	0.961	0.934	1.895	23	22	45
13:00-14:00	1.197	1.158	2.355	29	28	57
14:00-15:00	1.000	1.171	2.171	24	28	52
15:00-16:00	0.842	0.974	1.816	20	23	44
16:00-17:00	0.500	0.645	1.145	12	15	27
17:00-18:00	0.579	0.632	1.211	14	15	29
18:00-19:00	0.395	0.487	0.882	9	12	21
19:00-20:00	0.211	0.211	0.421	5	5	10
20:00-21:00	0.145	0.132	0.276	3	3	7
21:00-22:00	0.132	0.250	0.382	3	6	9
22:00-23:00	0.066	0.079	0.145	2	2	3
23:00-00:00	0.013	0.013	0.026	0	0	1

Table 5-7 PFS – Trip Generation

Time Period	Arrivals	Departures	Total	Arrivals	Departures	Total
06:00-07:00	4.717	4.424	9.141	57	53	110
07:00-08:00	7.576	7.370	14.946	91	88	179
08:00-09:00	7.652	7.489	15.141	92	90	182
09:00-10:00	7.446	7.467	14.913	89	90	179
10:00-11:00	6.902	6.946	13.848	83	83	166
11:00-12:00	7.000	7.054	14.054	84	85	169
12:00-13:00	8.707	8.424	17.131	104	101	206
13:00-14:00	7.826	7.826	15.652	94	94	188
14:00-15:00	7.467	7.130	14.597	90	86	175
15:00-16:00	7.076	7.446	14.522	85	89	174
16:00-17:00	7.772	8.065	15.837	93	97	190
17:00-18:00	8.565	8.457	17.022	103	101	204
18:00-19:00	7.880	8.109	15.989	95	97	192
19:00-20:00	6.283	6.315	12.598	75	76	151
20:00-21:00	5.239	5.152	10.391	63	62	125
21:00-22:00	3.652	3.837	7.489	44	46	90
22:00-23:00	1.750	2.000	3.750	21	24	45
23:00-00:00	0.450	0.650	1.100	5	8	13

Table 5-8 Total Trip Generation

Time Period	Arrivals	Departures	Total
06:00-07:00	63	59	121
07:00-08:00	104	99	202
08:00-09:00	111	105	216
09:00-10:00	112	110	223
10:00-11:00	100	98	198
11:00-12:00	107	105	212
12:00-13:00	128	124	251
13:00-14:00	123	122	244
14:00-15:00	114	114	227
15:00-16:00	105	113	218
16:00-17:00	105	112	218
17:00-18:00	117	117	233
18:00-19:00	104	109	213
19:00-20:00	80	81	161
20:00-21:00	66	65	131
21:00-22:00	47	52	99
22:00-23:00	23	26	48
23:00-00:00	6	8	14

- 5.6.4 As shown above, the peak development impact takes place between 12:00 and 13:00, with a total trip generation of 251 movements. In conjunction with the above, to ensure the robustness of the AM and PM peak periods, consideration has been given to the 2023 baseline flows for this time period, compared to the AM and PM peaks. A summary of the total movements at each of the junctions under assessment is provided in **Table 5-9**.

Table 5-9 Peak Period Comparison

Junction	AM Peak	Inter Peak	PM Peak
A227 Wrotham Road / Coldharbour Road / Wrotham Road roundabout	3,136	2,615	3,447
A227 Wrotham Road / A2 eastbound slips roundabout	3,005	2,430	3,455
A227 Wrotham Road / A2 westbound slips roundabout	2,552	1,789	2,503
Total	8,693	6,834	9,405

- 5.6.5 Based on the above, whilst the overall trip impact of the development is greater in the inter peak, the wider network flows are significantly lower in the inter peak period when compared with the AM and PM peaks, 1,859 and 2,571 trips lower for the AM and PM peaks respectively. Given the above, it is not considered necessary to model the inter peak period, with only the AM and PM peaks to be considered further.
- 5.6.6 For the peak periods outlined, the following assessment years are to be considered:-
- 2023 Baseline;
 - 2025 Opening Year (in accordance with 01/2022 Circular and pre-application discussions with NH); and
 - 2028 Future Year (+5 year horizon).
- 5.6.7 In order to ascertain the extent to which the junctions under assessment have capacity for the proposed development impact, the following scenarios will be assessed:-
- 'Do Nothing' (baseline conditions plus committed development but excluding the proposed development); and
 - 'Do Minimum' ('Do Nothing' plus the proposed development).
- 5.6.8 As necessary, following the results of the above assessments, consideration of a 'Do Something' scenario ('Do Minimum' plus proposed mitigation) will be undertaken.
- 5.6.9 An additional 'Do Minimum' scenario, accounting for the residual impacts of the proposed development when considered in the context of the extant hotel use, will also be considered as a sensitivity scenario.

5.7 Transport Assessment Addendum

- 5.7.1 As detailed above, following additional pre-application discussions with NH, a review of the committed developments to be included as part of the junction modelling assessments has been discussed with GBC.
- 5.7.2 At the time of writing, a revised list of developments has been issued and is being reviewed. As necessary, the additional committed developments will be added into the models and the changes requested by NH will be made also.
- 5.7.3 The resulting junction assessment methodology, junction capacity modelling results and associated merge and diverge assessments will be outlined in a TA Addendum which will follow the submission of this TA to allow for further discussion with NH and KCC H&T.

6. Summary and Conclusion

- 6.1.1 This Transport Assessment has been produced by Markides Associates on behalf of BP Pulse in relation to the proposals at the former Tollgate Hotel in Gravesend, Kent.
- 6.1.2 The proposals relate to a planning application for the development of a 12-pump petrol filling station (PFS) and a 24-space Electric Vehicle (EV) ChargePoint facility, with an ancillary retail / café use (measuring 450sqm). A total of 41 parking spaces will accompany the proposals with access to be retained as existing, forming a dedicated arm of the A227 Wrotham Road / A2 Eastbound Slip Road roundabout. Six cycle parking spaces will be developed in support of the application with a 3.0m footway / cycleway to be developed through the site to maintain access to National Cycle Route 177, to the north of the site.
- 6.1.3 In terms of transport planning policy, the proposed development is not seen to conflict with any national or local policy on accessibility, sustainability, highway safety or parking.
- 6.1.4 On review of the Personal Injury Collision (PIC) data for the surrounding area, for the latest seven-year period, it is concluded that the development proposals are unlikely to exacerbate any pre-existing highway safety concerns within the vicinity.
- 6.1.5 The trip impacts of the proposed development have been assessed using existing EV ChargePoint facilities in Braintree and Norwich and the TRICS trip rate database for the PFS. Trip distribution has been completed using existing turning count data to understand the likely proportion of vehicles travelling to and from the site. As agreed at the pre-application stage with both Kent County Council (KCC) and National Highways (NH) it is assumed that all trips accessing the site are existing, forming either pass by or diverted movements.
- 6.1.6 Following pre-application discussions, the following junctions will be reviewed:-
- A227 Wrotham Road / Coldharbour Road / Wrotham Road roundabout;
 - A227 Wrotham Road / A2 eastbound slip road / Site Access roundabout; and
 - A227 Wrotham Road / A2 westbound slip road roundabout.
- 6.1.7 Following additional pre-application discussions with NH, comments regarding the draft Transport Assessment shared were raised with respect to the capacity modelling presented. One of the comments noted the need to discuss the committed developments included within the assessment with GBC. A list of committed developments had previously been shared by GBC, however, to ensure the most up-to-date information is provided, a revised list has been produced by GBC. As a result, the modelling and associated merge and diverge assessments are being revised to accommodate these developments and the additional comments raised by NH.
- 6.1.8 A Transport Assessment Addendum will be produced which will outline the junction capacity methodology, results and associated merge and diverge assessments, for review by the Local and Strategic Highway Authorities.

APPENDIX A – PRE-APPLICATION SCOPING CORRESPONDANCE

Transport Assessment Scoping Note

Former Tollgate Hotel, Gravesend

31 October 2022

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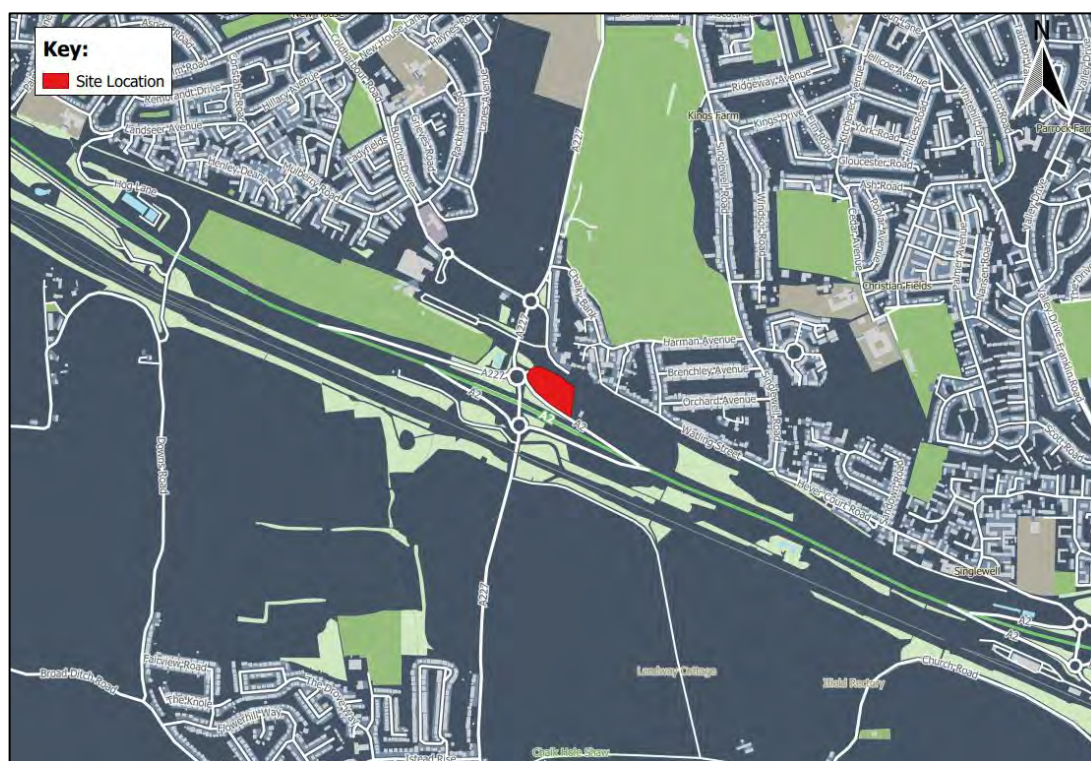
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1. Introduction

1.1 Preamble and Site Location

- 1.1.1 Markides Associates (MA) have been appointed by BP Oil (UK) Ltd (the Applicant) to prepare this Transport Assessment Scoping Report (TASR) in advance of a planning application for the redevelopment of the former Tollgate Hotel site, Gravesend.
- 1.1.2 The site is located approximately 2.9km from Gravesend Town Centre and is bound to the south by the A2 eastbound on-slip, while to the west, it is bound by the A227 Wrotham Road / A2 eastbound on and off-slip roundabout. To the east lies undeveloped grassland and to the north, beyond the grassland lies Wrotham Road, from which a Shell petrol station and an associated convenience store are accessed
- 1.1.3 A plan indicating the site location is shown in **Figure 1.1**.

Figure 1.1 Site Location Plan



- 1.1.4 The site is located within the authoritative boundary of Gravesham Borough Council (GBC), with Kent County Council (KCC) acting as the relevant Highway Authority. The A2, which lies adjacent to the site, is also managed by National Highways (NH), the Strategic Highway Authority.

1.2 Planning History

Application Reference 20131018

- 1.2.1 An application was submitted in relation to this site in 2013 for *“the demolition of former hotel/restaurant and erection of a petrol filling station and forecourts with underground fuel tanks, sales building with ATM, restaurant with drive-through facility, AC/refrigeration units, refuse/recycling, substation, vehicular access, parking provision and associated works and services.”*
- 1.2.2 A TA was produced by Waterman Aspen in October 2013, which assessed an 18-pump petrol filling station (16 car/van pumps and 2 HGV fuel lanes) and a 464sqm fast food restaurant (McDonalds) with drive-through. The petrol filling station (PFS) was to be supported by 25 parking spaces and a kiosk with WC facilities, while the fast-food restaurant was to be supported by 52 car parking spaces. The site access was via the Wrotham Road / A2 eastbound slips roundabout, the same way that the existing site is accessed with minor amendments, in the form of localised widening.
- 1.2.3 In December 2013, KCC commented that they had no objection to the application but stated flexibility should be retained at the site access to allow for future potential development in the area, as well as recommending modifications to the pedestrian and cycle links through the site. Also in December 2013, The Highways Agency (now National Highways) recommended granting permission subject to the condition that the development not be occupied until the proposed site access layout onto the Wrotham Road / A2 eastbound slips roundabout was delivered.
- 1.2.4 The planning application was recommended for approval in January 2014; however, an application for a Judicial Review by the owner of the nearby petrol filling station followed which delayed the grant of consent. The existing petrol filling station is a traditional 12-pump station, operated by Shell. The owners appointed transport consultants (DW) reviewed the original Waterman TA and raised several concerns.
- 1.2.5 In January 2015, The Highways Agency responded to these concerns, stating that they did not accept all the arguments put forward by DW and saw no reason to conduct a fresh appraisal of the application. They stated that they considered the proposals to be compliant with relevant policy, not resulting in severe residual impacts and did not consider that the application should be refused on strategic highways grounds.
- 1.2.6 The application was withdrawn in 2017.

Application Reference 20160215

- 1.2.7 In 2016, a separate application (reference: 20160215) was submitted by the Applicant for a PFS, identical to that proposed under application 20131018, but without the on-site restaurant and drive-through.
- 1.2.8 In June 2016, Highways England (now National Highways) responded to the application to state that they recommended granting permission subject to the condition that the

development not be occupied until the proposed site access layout onto the Wrotham Road / A2 eastbound slips roundabout was delivered, and a Construction Traffic Management Plan (CTMP) produced.

- 1.2.9 In February 2017, the Applicant's transport consultants submitted a Technical Note under applications 20131018 and 20160215 containing details for the proposed modifications to the existing Wrotham Road / A2 eastbound slips roundabout. These modifications built on the original site access proposals submitted by Waterman Aspen as part of application 20131018 to include a pedestrian island to improve the infrastructure for pedestrians accessing the site.
- 1.2.10 In June 2017, KCC stated that they did not object to the proposals on highway grounds, subject to several conditions including providing a Travel Plan, providing a drawing which indicates pedestrian infrastructure retained as part of the proposals, and ensuring the proposed modification to the existing roundabout from which site is accessed is delivered prior to occupation.
- 1.2.11 In November 2017, the Applicant's transport consultants submitted an updated TA, which assessed the proposals at the site, replicating the original Waterman Aspen TA which was submitted as part of the 20131018 application in October 2013. This TA updated the original assessment in terms of committed developments, traffic counts, queue data, personal injury data and capacity analysis. As the 20131018 application had a greater impact than the proposals submitted under application 20160215, the impact of the larger PFS and fast food drive-through was reassessed as a 'worst-case'.
- 1.2.12 In January 2018, Highways England stated again that they recommended granting permission subject to the condition that the development not be occupied until the proposed site access layout onto the Wrotham Road / A2 eastbound slips roundabout was delivered, and a CTMP Plan produced.
- 1.2.13 Also in January 2018, KCC stated that they would not object to the application provided that conditions relating to highway works associated with the site access from the Wrotham Road / A2 eastbound slips roundabout being completed to the satisfaction of the LPA prior to occupation, and submission and application of a Construction Management Plan and Servicing Management Plan.
- 1.2.14 The application was appealed for non-determination, but the appeal was then withdrawn by the applicant before being decided.

1.3 Development Proposals

- 1.3.1 The current development proposals are for demolishing the existing buildings and constructing an EV ChargePoint Service Area with an ancillary traditional refuelling forecourt for Light Goods Vehicle (LGV) and private motor vehicles.
- 1.3.2 A total of 24 EV ChargePoints will be provided, with 12 of these serviced by 300kW ultra-rapid chargers. For those EVs capable of accepting 100 kW or more, charging times are kept

down to 20-40 minutes even for models with a large battery capacity. The remaining ChargePoints will benefit from rapid chargers. Rapid AC chargers provide power at 43 kW. They are typically able to charge an EV to 80% in 20-40 minutes.

- 1.3.3 These ChargePoints will be situated around the perimeter of an ancillary sales building (450sqm), which will include a small shop, café, WCs and seating.
- 1.3.4 The traditional refuelling forecourt will be located to the east of the site, with 12 pumps arranged in a Domino-6 pattern.
- 1.3.5 To the south of the site, four staff car parking spaces and two air and water bays are proposed.
- 1.3.6 Ancillary to the on-site uses, a total of 33 car parking bays are proposed to the west of the site. These spaces are intended to act as holding bays, which will enable those waiting for ChargePoints to queue in an orderly manner when the facilities are fully employed and for those that have used the traditionally refueling facility and want to park away from the pumps to use the café / WC.

1.4 Transport Assessment Requirement

- 1.4.1 The proposed scale of development requires the eventual planning application to be supported by a Transport Assessment (TA). This TASR has therefore been produced to set out the assumptions and methodologies that will be adopted within the TA.
- 1.4.2 KCC are invited to comment on the TASR so that any assumptions can be discussed, tested and ultimately agreed upon in advance of any planning submission.
- 1.4.3 The TA will be structured as follows:-
 - Introduction;
 - Review of relevant policy context;
 - Review of the existing situation, including site location accessibility and transport infrastructure;
 - Description of development proposals;
 - Multi-modal trip generation and distribution;
 - Traffic impact analysis; and
 - Conclusion
- 1.4.4 The remainder of this TASR is loosely structured to follow these chapter headings.

2. Planning Policy and Guidance

- 2.1.1 The TA will ensure the development proposals complement the relevant planning and transport-related policies and guidance contained within the following documents.

National

- **National Planning Policy Framework (2021)**
The National Planning Policy Framework was revised on 20 July 2021 and sets out the government's planning policies for England and how these are expected to be applied.
- **Planning Practice Guidance (2014)**
The Planning Practice Guidance (2014) was launched by the Department for Communities and Local Government on 6th March 2014. It provides advice on when Transport Assessments and Statements are required and what they should contain
- **Department for Transport's (DfT) Circular 02/2013 – The Strategic Road Network and Delivery of Sustainable Development (September 2013)**
This document details the way in which National Highways engage with communities and the development industry to deliver sustainable development.
- **Taking Charge: The Electric Vehicle Infrastructure Strategy (2022)**
This document sets out the UK Government's vision and action plan for the rollout of electric vehicle charging infrastructure.

Regional

- **Kent Local Transport Plan 4: Delivering Growth Without Gridlock 2016-2031**
LTP4 sets out KCC's policies to deliver strategic outcomes for transport and is accompanied by implementation plans and a methodology for prioritising funding. It details KCC's key transport priorities and their longer-term objectives.

Local

- **Gravesham Local Plan Core Strategy (2014)**
This Core Strategy sets out the Council's long-term spatial vision for the Borough. The Core Strategy covers the period from 1st April 2011 to 31st March 2028. It outlines the strategic objectives for the Borough based on the characteristics of the area and the key issues to be addressed.
- **Gravesham Local Plan First Review (saved policy)**
The adopted Core Strategy replaces several policies within Gravesham's previous Local Plan, however, several policies were saved as part of this review, which remain relevant when determining planning applications.

3. Existing Conditions

3.1 Overview

- 3.1.1 The TA will provide a detailed review of the site location and existing transport infrastructure that serves the site, a summary of which is provided within this section of the TASR.

3.2 Site Location

- 3.2.1 The site is located approximately 2.9km from Gravesend Town Centre and is bound to the south by the A2 eastbound on-slip, while to the west, it is bound by the A227 Wrotham Road / A2 eastbound on and off-slip roundabout. To the east lies undeveloped grassland and to the north, beyond the grassland lies Wrotham Road, from which a Shell petrol station and an associated convenience store are accessed. This PFS has 12-pumps and an ancillary retail centre which includes a SPAR, Subway and hot food takeaway.
- 3.2.2 Much of the wider area is mixed-use in nature. A significant proportion of land to the north of the site is residential, although commercial uses such as a Travelodge, Toby Carvery and out-of-town retail centre including Tile Station and Screwfix are located to the northwest, some 250m as the crow flies. Across the A227 Wrotham Road / A2 eastbound on and off-slip roundabout, a Cyclopark is present, with Mid Kent Golf Club located around 330m north as the crow flies.
- 3.2.3 To the south, beyond the A2 dual carriageway, lies the High Speed 1 railway line. Further south, the land is predominantly agricultural, although small settlements including Istead Rise and New Barn are present.

3.3 Transport Infrastructure

- 3.3.1 The TA will include a comprehensive review of transport infrastructure within the vicinity of the site, including pedestrian, cycle, public transport, and local highway networks, with a brief review included within this TASR.
- 3.3.2 Key elements of local transport infrastructure are illustrated in **Figure 3.1**.

Figure 3.1 Key Transport Infrastructure



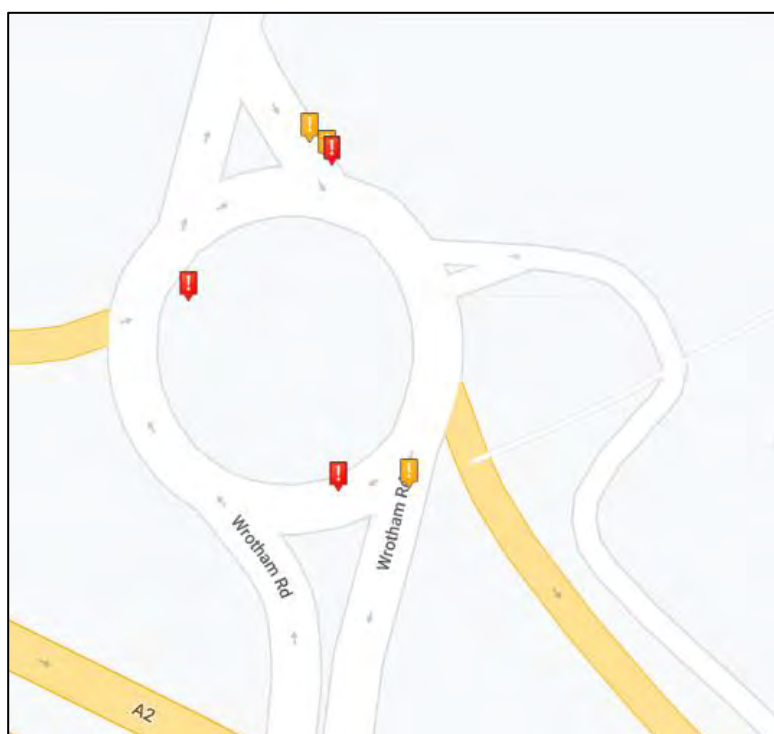
Local and Strategic Highway Network

- 3.3.3 The site is accessed from a dedicated arm of the A227 Wrotham Road / A2 eastbound on and off slip roundabout. The access road measures approximately 6.0m in width accommodating two-way vehicle movements. The access is currently closed off to prohibit errant access to the site.
- 3.3.4 The A227 Wrotham Road / A2 eastbound on and off slip roundabout is a five-arm roundabout, which provides access to and from the westbound carriageway of the A2. To the north, the A227 Wrotham Road measures approximately 9.5m in width and is provided with street lighting across its length. It is subject to a 40mph speed restriction in this location.
- 3.3.5 The A227 continues to the A227 Wrotham Road / Wrotham Road / Coldharbour Road roundabout, where the A227 continues northwards into Gravesend Town Centre. Coldharbour Road routes north westwards providing access to Northfleet with Wrotham Road forming a no through route, with access to the Shell petrol filling station and Cyclopark.
- 3.3.6 The A227 Wrotham Road / A2 eastbound on and off slip roundabout lies to the south of the site and takes the form of a four-arm roundabout. Here, the A227 continues south providing access to the villages of Istead Rise, Meopham and Vigo Village. The A227 goes on to intersect the A20, from which onwards connectivity to the M20 at Junction 2 and the M26 at Junction 2a is provided.
- 3.3.7 The A2 takes a general east-west alignment and lies to the south of the site. In the east, the A2 intersects the M2 at Junction 1, providing access to the Medway Towns, Sittingbourne

(via Junction 5), Faversham (via Junction 6) and Canterbury (via Junction 7), where the A2 continues to the coastal town of Dover. In the west, the A2 intersects the M25 at Junction 2, providing wider strategic connectivity. From this junction, the A2 continues further west into central London.

- 3.3.8 In terms of highway safety, 3 serious incidents and 3 slight incidents have occurred within the vicinity of the site access over the most recent five-year period (2017-2021). No fatal incidents have occurred. The locations of these incidents are shown in **Figure 3.2**.

Figure 3.2 Location of Nearby Incidents



Source: Crashmap (<https://www.crashmap.co.uk/Search>)

- 3.3.9 As part of the TA, further detail about these incidents will also be sourced and reviewed to establish if there is a link between these incidents and the design of the local highway network. Consideration will also be given to the Wrotham Road / A2 westbound off slip / A2 westbound on slip roundabout and the A227 Wrotham Road / Wrotham Road / Coldharbour Road roundabout.

Recent Highway Improvements

- 3.3.10 As a result of Planning Application Reference 20181271, for the development of a food retail store and B2/B8 facilities, highway improvement works have been completed within the vicinity of the site. With respect to the Wrotham Road / Wrotham Road / Coldharbour Road roundabout, the flare length on the Coldharbour Road arm of the junction has been increased to allow for additional vehicle stacking space on entry to the roundabout. The improvement is shown overleaf in **Figure 3.3**.

Figure 3.3 Coldharbour Road – Capacity Improvement



- 3.3.11 In addition to the above, modifications to the A2 eastbound off slip have been undertaken as part of this development, with an island feature introduced between the two traffic lanes. The nearside lane is signed for left turn only movements, with the offside lane provided for all movements. Both lanes are provided as give-way features. To accommodate this improvement, the northbound lane of the A227 between the A2 roundabout and the Coldharbour Road roundabout, has been increased in width to accommodate two lanes of traffic. These improvement works are shown in **Figure 3.4** and **Figure 3.5**.

Figure 3.4 A227 Wrotham Road – Two Lanes



Figure 3.5 A2 Eastbound Off Slip – Highway Improvement



- 3.3.12 With respect to active and sustainable transport improvements, the pedestrian refuge island on the A227 (north) arm of the A227 Wrotham Road / A2 eastbound on/off-slip roundabout has been enlarged, as shown in **Figure 3.6**.

Figure 3.6 A227 (North) – Pedestrian Refuge Island



- 3.3.13 Finally, the southbound bus stop on the A227 (north) arm has also been relocated from under the bridge and is now provided with a dedicated layby facility and improved footway. This is shown in **Figure 3.7**.

Figure 3.7 A227 (North) – Southbound Bus Stop Improvement



Walking and Cycling Infrastructure

- 3.3.14 A footway is provided to the west of the site, across the frontage on the A227 Wrotham Road / A2 eastbound on and off slip roundabout. This footway measures 2.0m in width. A dropped kerb, tactile paving crossing facility is in place across the A2 eastbound on slip, connecting with the footway provision to the south of the site, adjoining the A227 Wrotham Road / A2 westbound on and off slip roundabout. This facility measures 3.0m in width and is provided as a shared footway / cycleway.
- 3.3.15 At the A227 Wrotham Road / A2 westbound on and off slip roundabout, the shared facility crosses the westbound off slip via a further dropped kerb, tactile paving crossing, with a refuge island crossing provided on the A227 Wrotham Road (south) arm. The footway / cycleway, continuing on the western side of Wrotham Road, provides continuous connectivity to the village of Istead Rise.
- 3.3.16 Within the site confines, the shared footway / cycleway crosses the site access road, travelling to the north of the site, where it intersects National Cycle Route 177.

Public Transport Infrastructure

- 3.3.17 The nearest bus stops to the site are located on Wrotham Road, locally referred to as 'Tollgate', and are accessible via existing footways. Both bus stops are located approximately 160m from the site access. The northbound bus stop is provided with a dedicated shelter and is signposted with a flag and pole and provide timetable information. A raised height kerb is also provided. The southbound bus stop has been improved, as detailed above, with a dedicated layby facility.

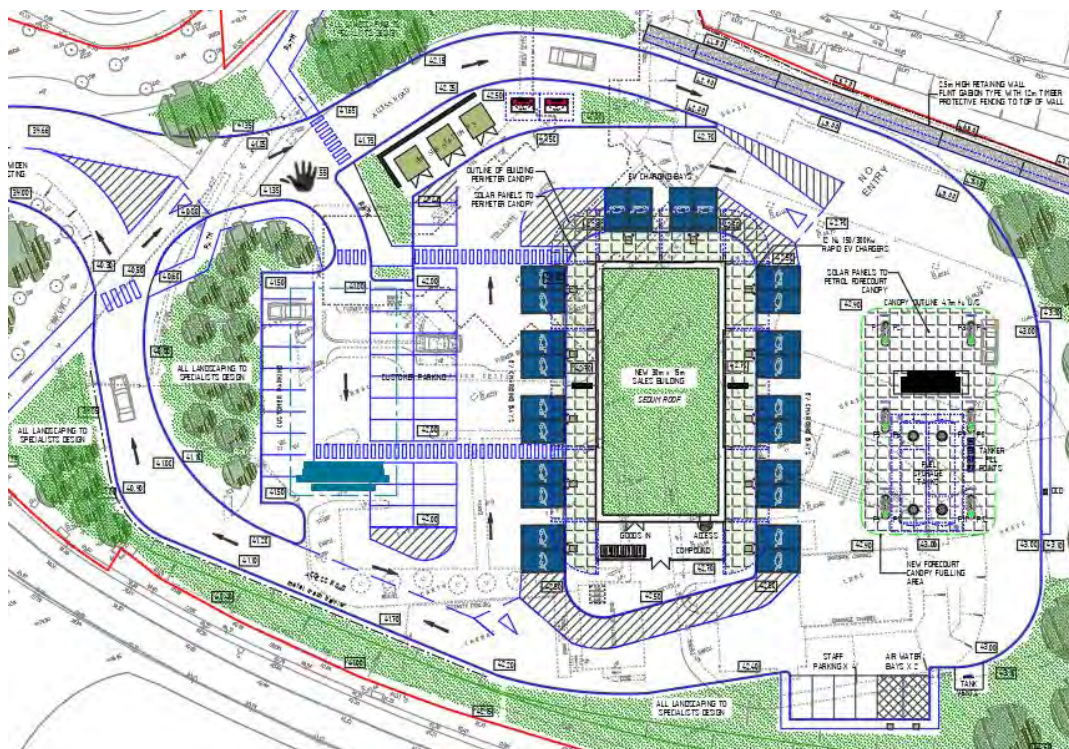
- 3.3.18 Several bus services are available from these stops, including the frequent 306/308 which operates Monday-Saturday and connects local residential areas including Gravesend, Instead Rise and Meopham.
- 3.3.19 The TA will include a detailed description of routes served and service frequencies.

4. Development Proposals

4.1 Scale of Development

- 4.1.1 The development proposals are for demolishing the existing buildings and constructing an EV ChargePoint Service Area with an ancillary traditional refuelling forecourt for Light Goods Vehicle (LGV) and private motor vehicles.
- 4.1.2 A total of 24 EV ChargePoints will be provided, with 12 of these serviced by 300kW ultra-rapid chargers. These ChargePoints will be situated around the perimeter of an ancillary sales building (450sqm), which will include a small shop, café, WCs and seating.
- 4.1.3 The traditional refuelling forecourt will be located to the east of the site, with 12 pumps arranged in a Domino-6 pattern.
- 4.1.4 To the south of the site, four staff parking bays and two air and water bays are proposed.
- 4.1.5 Ancillary to the on-site uses, a total of 33 car parking bays are proposed to the west of the site. These spaces are intended to act as holding bays, which will enable those waiting for ChargePoints to queue in an orderly manner when the facilities are fully employed.
- 4.1.6 A plan of the proposed site layout is attached as **Appendix A**, with an extract shown in **Figure 4.1**.

Figure 4.1 Extract of the Proposed Site Layout



- 4.1.7 No facilities for HGVs are proposed as part of the development.

5. Trip Generation and Distribution

5.1 Overview

- 5.1.1 This section of the TASR estimates the vehicular trip generation and distribution associated with the existing use on site and the emerging development proposals. In light of the time that has passed since the previous planning applications at the site, revised assessments for the trip generation and distribution have been completed, to reflect up to date survey information.

5.2 Existing Use

- 5.2.1 The site is occupied by a vacant hotel building with 59 bedrooms. The planning permission for this site remains extant and it could theoretically be re-occupied. Estimates of the trip generation for the existing use on site were previously identified as part of application 20131018 and these are summarised in **Table 5.1**.

Table 5.1 Hotel Trips – Application 20131018

Time Period	59-Bed Hotel		
	Arrival	Departure	Total
Weekday AM Peak (08:00-09:00)	15	18	33
Weekday PM Peak (17:00-18:00)	26	46	72

- 5.2.2 Given the timing of the previous application at the site, a revised trip assessment has been completed, to ensure that the trip generation of the hotel is representative. A TRICS assessment was completed using the category '06 Hotel, Food and Drink, A – Hotels'. Sites outside of London, within England, Scotland and Wales were considered in Neighbourhood Centre, Edge of Town and Suburban locations. Any surveys conducted during COVID conditions were removed from consideration. On review of the site's selected it is considered that the surveys offer a suitable assessment of the site.
- 5.2.3 The resulting TRICS trip rates are detailed in **Table 5.2**, with the full TRICS report included at **Appendix B**.

Table 5.2 Hotel TRICS Trip Rates (trips/bedroom)

Time Period	TRICS Trip Rates		
	Arrival	Departure	Total
Weekday AM Peak (08:00-09:00)	0.088	0.186	0.274
Weekday PM Peak (17:00-18:00)	0.236	0.152	0.388

- 5.2.4 The TRICS trip rates were subsequently factored by the total number of bedrooms provided (59 bedrooms). The resulting trip generation is outlined in **Table 5.3**. Please note that any inaccuracies are the result of rounding in MS Excel.

Table 5.3 Hotel Trip Generation

Time Period	59-Bed Hotel		
	Arrival	Departure	Total
Weekday AM Peak (08:00-09:00)	5	11	16
Weekday PM Peak (17:00-18:00)	14	9	23

- 5.2.5 The revised trip assessment for the hotel indicates that 16 vehicle movements would take place during the AM peak with 23 taking place in the PM peak. These flows will be utilised as part of the assessment methodology, to establish the residual trip impact of the proposed development.

5.3 Proposed Trip Generation and Distribution

EV ChargePoints

- 5.3.1 The TRICS database does not have proxy sites for EV charging forecourts, as these are very new. It has therefore been necessary to undertake surveys at two existing EV charging hubs that are operational. Both are operated by Gridserve and are located adjacent to A roads near Braintree, Essex and Norwich, Norfolk.
- 5.3.2 Details of the facilities at these sites, the survey output and calculation of vehicle trip rate per charge point can be found in **Appendix B**. The trip rates and trip generation based on the 24 charge points proposed can be seen in

Table 5.4 EV Charging Hub Trip Rates and Generation

Time Period	Trip Rates		
	In	Out	Total
Weekday AM Peak (08:00-09:00)	0.816	0.618	1.434
Weekday PM Peak (17:00-18:00)	0.579	0.632	1.211
Daily (06:00-00:00)	10.263	10.289	20.553
Trip Generation			
Weekday AM Peak (08:00-09:00)	20	15	35
Weekday PM Peak (17:00-18:00)	14	15	29
Daily (06:00-00:00)	246	247	493

- 5.3.3 The EV charging hub would therefore be expected to generation 35 vehicle trips in the AM peak hour, 29 in the pm peak and 493 trips in a typical day.

Traditional PFS

- 5.3.4 To establish the trip generating potential of the PFS, a review of the TRICS trip rate database has been completed. The category '13 – Petrol Filling Stations, B – PFS – with retail' was utilised, assessing sites outside of London, within England, Scotland and Wales. This category is considered suitable in light of the ancillary uses proposed on site. Sites were considered in Neighbourhood Centre, Edge of Town and Suburban locations and subsequently refined based on proximity to the primary A road network. Any surveys conducted during COVID conditions were removed from consideration. Additionally, if any sites were associated with a large retail facility, namely a supermarket, these were removed. Finally, it is noted that several sites fall within slightly more suburban environments that the site under consideration. It is, however, noted that the site lies within close proximity to the suburbs of Gravesend with a proportion of trips likely to originate from this location. Therefore, these have been retained.
- 5.3.5 The resulting TRICS trip rates are detailed in **Table 5.5**, with the full TRICS report included at **Appendix C**. Please note any inaccuracies are the resulting of rounding in MS Excel.

Table 5.5 TRICS Trip Rates and Trip Generation – PFS with Retail (12 Pumps)

Time Period	Trip Rates		
	In	Out	Total
Weekday AM Peak (08:00-09:00)	7.652	7.489	15.141
Weekday PM Peak (17:00-18:00)	8.565	8.457	17.022
Daily (06:00-00:00)	113.96	114.161	228.121
Trip Generation			
Weekday AM Peak (08:00-09:00)	92	90	182
Weekday PM Peak (17:00-18:00)	103	101	204
Daily (06:00-00:00)	1,368	1,370	2,737

- 5.3.6 The resulting trip generation results in a total of 182 trips in the AM peak and 204 in the PM peak.

Total Trip Generation

- 5.3.7 Taking the above methodology, the total peak period trip generation for the site is outlined in **Table 5.6**.

Table 5.6 Total Trip Generation – EV ChargePoints and PFS

Time Period	Proposed EV ChargePoints		
	Arrival	Departure	Total
Weekday AM Peak (08:00-09:00)	112	105	217
Weekday PM Peak (17:00-18:00)	117	116	233

- 5.3.8 The trip generation detailed above will be utilised for the purposes of the assessment of the site.

5.4 Distribution

- 5.4.1 For the site distribution, the following assumptions will be made:-

- All trips will be existing trips on the network;
- The proposals are not expected to impact the operations of the adjacent Shell garage, as a result of the high vehicle volumes on the A2 providing sufficient demand for both facilities. As such, the distribution will be provided in line with existing turning proportions at the wider junctions to establish the proportion of vehicles travelling to and from the site; and
- For the EV charging points, these are intended to meet the needs of strategic long-distance trips, rather than to cater for trips with a local origin or destination (these would need to be catered for by slower charge facilities on-street or within residential

curtilages). It is assumed that all traffic using these would divert from the A2 and return to the A2.

6. Traffic Impact Analysis and Scope

6.1 Baseline Traffic Flows

6.1.1 Manual Traffic Surveys will be undertaken at the following junctions to establish the existing volume of traffic using these junctions:-

- Coldharbour Road/A227 Wrotham Road roundabout;
- A227 Wrotham Road/A2 eastbound slips roundabout; and
- A227 Wrotham Road/A2 westbound slips roundabout.

6.1.2 The surveys will be conducted on a weekday for the AM and PM peak time periods of:-

- AM: 07:00-10:00; and
- PM: 16:00-19:00.

6.1.3 The observed flows will then be 'growthed' to a future opening-year scenario using 'growth' factors obtained from the TEMPRO v7.2c database and wider committed development. It is assumed that the development would be fully operational by 2025. To ensure suitability, a +5 year (2027) horizon is proposed for assessment purposes.

6.1.4 With respect to wider committed developments, the following is noted:-

- **KCC/GR/0192/2019** - 1 Form of Entry (FE) expansion to the school - St Georges Church of England School, Meadow Road, Gravesend. The new expansion building appears to have been completed for September 2022. The 1FE expansion will take place gradually, with full occupancy expected in 2027. Therefore, the trip generation associated with this expansion will be considered as part of the modelling exercise;
- **KCC/GR/0165/2017** - A new build 2 storey 420 place Primary School - St Georges Church of England School (Primary School Campus). Reviewing the school online, it appears that at present, the school has reached capacity to Year 4. Whilst not at full occupancy, given the more localised catchment of pupils associated with a primary school, it is not considered that the site will materially impact the junctions under consideration; and
- **20141214** - Outline planning application for the development of up to 400 new homes - Land at Coldharbour Road, Northfleet, Gravesend. On review of the site, it is noted that most units are constructed and occupied. However, looking aerially on Google and assessing the available properties outlined by Bovis Homes and Persimmon Homes an element of the site remains under construction. To ensure a robust assessment, it will be assumed that 30% of dwellings remain to be completed. These flows will be added to the network as part of the assessment.

6.1.5 Guidance is sought regarding any additional committed developments that may require consideration.

- 6.1.6 Assessing the TEMPRO growth rates, it is noted that the site and majority of the surrounding highway network is situated in Middle-Layer Super Output Area (MSOA) Gravesham 009. The roads under consideration are classified as 'Trunk' and 'Principal' routes.
- 6.1.7 On review of the committed developments considered, it is noted that the proposals for Planning Application 20141214 were outlined in Gravesham's adopted Local Plan under Policy CS21. This site also lies within MSOA Gravesham 009 and therefore, the 400 dwellings permitted as part of this application have been manually removed from TEMPRO, through the alternative assumption option, as these will be both within the baseline surveys and added separately as detailed above. The amendment within TEMPRO results in the future housing growth figure equalling the base housing growth figure.
- 6.1.8 The resulting TEMPRO growth factors to be applied as part of the capacity assessments are detailed in **Table 6.1**.

Table 6.1 TEMPRO Growth Rates – 2022-2027

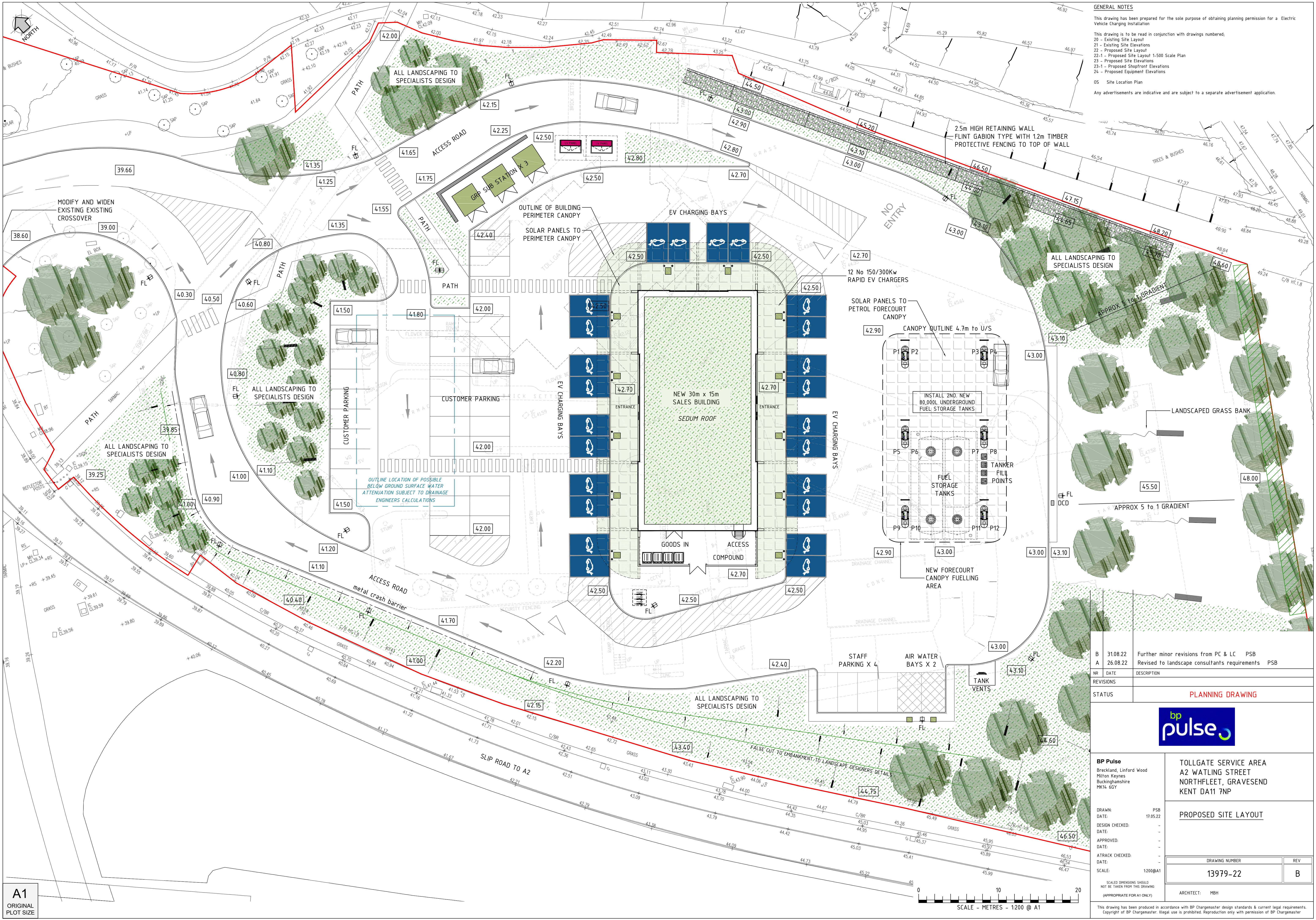
Road Type	Roads	AM Peak	PM Peak
Principal	A227 Wrotham Road, Coldharbour Road	1.0166	1.0176
Trunk	A2 Slips	1.0257	1.0267

- 6.1.9 With respect to Wrotham Road, leading to the Shell PFS and Cyclopark facility, given that this route is a no-through route, it is not anticipated that traffic growth will take place in accordance with the wider highway network, as the road leads only to finite land uses. As such, not growth will be applied to this road.
- 6.1.10 Theoretically the existing hotel could be brought back into use and as part of the future year baseline assessment it is assumed that the site would be re-occupied as a hotel. In the future with development scenario, the hotel use will be replaced with the proposed development. To be robust, an additional future year baseline assessment without the re-occupation of the hotel will also be undertaken.

6.2 Junction Capacity Assessments

- 6.2.1 Junctions9 software will be used to establish the existing junction capacities for the weekday peaks. The following scenarios will be tested:
- **2022 Base;**
 - **2027 Do Nothing** – 2022 surveys grown to 2025, with committed development;
 - **2027 Do Minimum** – Do Nothing plus proposed development; and
 - **2027 Residual Do Minimum** – Do Minimum minus the impact of the existing hotel use.
- 6.2.2 Comparisons will be made between the baseline and with development scenarios to identify the impact of the proposals. If a severe adverse impact is identified appropriate mitigation measures will be examined and put forward.

APPENDIX A– PROPOSED SITE LAYOUT



GENERAL NOTES

This drawing has been prepared for the sole purpose of obtaining planning permission for a Electric Vehicle Charging Installation

This drawing is to be read in conjunction with drawings numbered:

- 20 - Existing Site Layout
- 21 - Existing Site Elevations
- 22 - Proposed Site Layout
- 22-1 - Proposed Site Layout 1:500 Scale Plan
- 23 - Proposed Site Elevations
- 23-1 - Proposed Shopfront Elevations
- 24 - Proposed Equipment Elevations

05 Site Location Plan

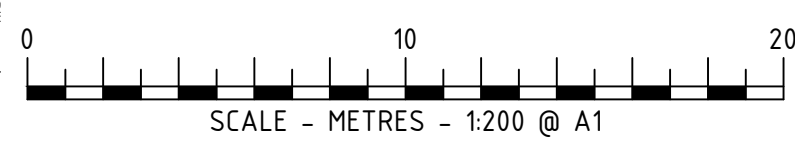
Any advertisements are indicative and are subject to a separate advertisement application.

B	31.08.22	Further minor revisions from PC & LC	PSB
A	26.08.22	Revised to landscape consultants requirements	PSB
NR	DATE	DESCRIPTION	
REVISIONS			
STATUS		PLANNING DRAWING	



BP Pulse Breckland, Linford Wood Milton Keynes Buckinghamshire MK14 6GY		TOLLGATE SERVICE AREA A2 WATLING STREET NORTHFLEET, GRAVESEND KENT DA11 7NP					
DRAWN: PSB DATE: 17.05.22 DESIGN CHECKED: - DATE: - APPROVED: - DATE: - A/TRACT CHECKED: - DATE: - SCALE: 1:200@A1 SCALED DIMENSIONS SHOULD NOT BE TAKEN FROM THIS DRAWING (APPROPRIATE FOR A1 ONLY)		<u>PROPOSED SITE LAYOUT</u> <table><tr><td>DRAWING NUMBER</td><td>REV</td></tr><tr><td>13979-22</td><td>B</td></tr></table> ARCHITECT: MBH		DRAWING NUMBER	REV	13979-22	B
DRAWING NUMBER	REV						
13979-22	B						
This drawing has been produced in accordance with BP Chargemaster design standards & current legal requirements. Copyright of BP Chargemaster. Illegal use is prohibited. Reproduction only with permission of BP Chargemaster							

A1
ORIGINAL
PLOT SIZE



APPENDIX B – EV CHARGE HUB DETAILS

EV Charging Survey
Classified Junction Count

Site 1 of 1

Car Park Access Entry
Car Park Access Exit

Lat/Long

lat 51.852558° lon 0.520747°

Date

Thursday 03 November 2022

Weather

Sunny Intervals
Temp: 11°C

0000 - 2400 (Thursday 24H Session)

Movement 1.1: Southbound from Car Park Access Exit to Car Park Access Entry									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0000 - 0015	0	0	0	0	0	0	0	0	0	0.00
0015 - 0030	0	0	0	0	0	0	0	0	0	0.00
0030 - 0045	0	0	0	0	0	0	0	0	0	0.00
0045 - 0100	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100 - 0115	0	0	0	0	0	0	0	0	0	0.00
0115 - 0130	0	0	0	0	0	0	0	0	0	0.00
0130 - 0145	0	0	0	0	0	0	0	0	0	0.00
0145 - 0200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200 - 0215	0	0	0	0	0	0	0	0	0	0.00
0215 - 0230	0	0	0	0	0	0	0	0	0	0.00
0230 - 0245	0	0	0	0	0	0	0	0	0	0.00
0245 - 0300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300 - 0315	0	0	0	0	0	0	0	0	0	0.00
0315 - 0330	0	0	0	0	0	0	0	0	0	0.00
0330 - 0345	0	0	0	0	0	0	0	0	0	0.00
0345 - 0400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400 - 0415	0	0	0	0	0	0	0	0	0	0.00
0415 - 0430	0	0	0	0	0	0	0	0	0	0.00
0430 - 0445	0	0	0	0	0	0	0	0	0	0.00
0445 - 0500	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500 - 0515	0	0	0	0	0	0	0	0	0	0.00
0515 - 0530	0	0	0	0	0	0	0	0	0	0.00
0530 - 0545	0	0	0	0	0	0	0	0	0	0.00
0545 - 0600	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600 - 0615	0	0	0	0	1	0	0	0	1	1.00
0615 - 0630	0	0	2	0	0	0	0	0	2	2.00
0630 - 0645	0	0	2	0	0	0	0	0	2	2.00
0645 - 0700	0	0	4	0	2	0	0	0	6	6.00
Hourly Total	0	0	8	0	3	0	0	0	11	11.00
Hourly Average	0.00	0.00	2.00	0.00	0.75	0.00	0.00	0.00	2.75	2.75
0700 - 0715	0	0	8	0	1	0	0	0	9	9.00
0715 - 0730	0	0	5	0	2	0	0	0	7	7.00
0730 - 0745	0	0	5	0	1	0	0	0	6	6.00
0745 - 0800	0	0	3	0	1	0	0	0	4	4.00
Hourly Total	0	0	21	0	5	0	0	0	26	26.00
Hourly Average	0.00	0.00	5.25	0.00	1.25	0.00	0.00	0.00	6.50	6.50
0800 - 0815	0	0	4	0	2	0	0	0	6	6.00
0815 - 0830	0	0	7	0	1	0	0	0	8	8.00
0830 - 0845	0	0	5	0	1	0	0	0	6	6.00
0845 - 0900	0	0	8	0	1	1	0	0	10	10.50
Hourly Total	0	0	24	0	5	1	0	0	30	30.50
Hourly Average	0.00	0.00	6.00	0.00	1.25	0.25	0.00	0.00	7.50	7.63
0900 - 0915	0	0	11	0	3	0	0	0	14	14.00
0915 - 0930	0	0	6	0	0	0	1	0	7	8.30
0930 - 0945	0	0	4	0	1	0	0	0	5	5.00
0945 - 1000	0	0	4	0	1	0	0	0	5	5.00
Hourly Total	0	0	25	0	5	0	1	0	31	32.30
Hourly Average	0.00	0.00	6.25	0.00	1.25	0.00	0.25	0.00	7.75	8.08
1000 - 1015	0	0	9	0	3	0	0	0	12	12.00
1015 - 1030	0	0	4	0	1	0	0	0	5	5.00
1030 - 1045	0	0	7	0	0	0	0	0	7	7.00
1045 - 1100	0	0	7	0	1	0	0	0	8	8.00
Hourly Total	0	0	27	0	5	0	0	0	32	32.00
Hourly Average	0.00	0.00	6.75	0.00	1.25	0.00	0.00	0.00	8.00	8.00
1100 - 1115	0	0	16	0	2	0	0	0	18	18.00
1115 - 1130	0	0	4	0	1	0	0	0	5	5.00
1130 - 1145	0	0	11	0	1	0	0	0	12	12.00

1145 - 1200	0	0	7	0	0	0	0	0	7	7.00
Hourly Total	0	0	38	0	4	0	0	0	42	42.00
Hourly Average	0.00	0.00	9.50	0.00	1.00	0.00	0.00	0.00	10.50	10.50
1200 - 1215	0	0	9	0	1	0	0	0	10	10.00
1215 - 1230	0	0	14	0	0	0	0	0	14	14.00
1230 - 1245	0	0	6	0	1	0	0	0	7	7.00
1245 - 1300	0	0	8	0	1	0	0	0	9	9.00
Hourly Total	0	0	37	0	3	0	0	0	40	40.00
Hourly Average	0.00	0.00	9.25	0.00	0.75	0.00	0.00	0.00	10.00	10.00
1300 - 1315	0	0	11	0	4	0	0	0	15	15.00
1315 - 1330	0	0	5	0	2	0	0	0	7	7.00
1330 - 1345	0	0	8	0	2	0	0	0	10	10.00
1345 - 1400	0	0	8	0	4	0	0	0	12	12.00
Hourly Total	0	0	32	0	12	0	0	0	44	44.00
Hourly Average	0.00	0.00	8.00	0.00	3.00	0.00	0.00	0.00	11.00	11.00
1400 - 1415	0	0	8	0	0	0	0	0	8	8.00
1415 - 1430	0	0	9	0	1	0	0	0	10	10.00
1430 - 1445	0	0	14	0	2	1	0	0	17	17.50
1445 - 1500	0	0	10	1	2	0	0	0	13	13.00
Hourly Total	0	0	41	1	5	1	0	0	48	48.50
Hourly Average	0.00	0.00	10.25	0.25	1.25	0.25	0.00	0.00	12.00	12.13
1500 - 1515	0	0	10	0	2	0	0	0	12	12.00
1515 - 1530	0	0	9	0	2	1	0	0	12	12.50
1530 - 1545	0	1	9	0	3	0	0	0	13	12.40
1545 - 1600	0	0	2	0	1	0	0	0	3	3.00
Hourly Total	0	1	30	0	8	1	0	0	40	39.90
Hourly Average	0.00	0.25	7.50	0.00	2.00	0.25	0.00	0.00	10.00	9.98
1600 - 1615	0	0	9	0	0	0	0	0	9	9.00
1615 - 1630	0	0	3	0	1	0	0	0	4	4.00
1630 - 1645	0	0	7	0	0	0	0	0	7	7.00
1645 - 1700	0	0	4	0	1	0	0	0	5	5.00
Hourly Total	0	0	23	0	2	0	0	0	25	25.00
Hourly Average	0.00	0.00	5.75	0.00	0.50	0.00	0.00	0.00	6.25	6.25
1700 - 1715	0	0	5	0	0	0	0	0	5	5.00
1715 - 1730	0	0	5	0	0	0	0	0	5	5.00
1730 - 1745	0	0	5	0	0	0	0	0	5	5.00
1745 - 1800	0	0	5	0	1	0	0	0	6	6.00
Hourly Total	0	0	20	0	1	0	0	0	21	21.00
Hourly Average	0.00	0.00	5.00	0.00	0.25	0.00	0.00	0.00	5.25	5.25
1800 - 1815	0	0	0	0	0	0	0	0	0	0.00
1815 - 1830	0	0	9	0	0	0	0	0	9	9.00
1830 - 1845	0	0	3	0	0	0	0	0	3	3.00
1845 - 1900	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	12	0	0	0	0	0	12	12.00
Hourly Average	0.00	0.00	3.00	0.00	0.00	0.00	0.00	0.00	3.00	3.00
1900 - 1915	0	0	1	0	0	0	0	0	1	1.00
1915 - 1930	0	0	2	0	0	0	0	0	2	2.00
1930 - 1945	0	0	2	0	0	0	0	0	2	2.00
1945 - 2000	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	6	0	0	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
2000 - 2015	0	0	2	0	0	0	0	0	2	2.00
2015 - 2030	0	0	2	0	0	0	0	0	2	2.00
2030 - 2045	0	0	0	0	0	0	0	0	0	0.00
2045 - 2100	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	6	0	0	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
2100 - 2115	0	0	2	0	0	0	0	0	2	2.00
2115 - 2130	0	0	0	0	0	0	0	0	0	0.00
2130 - 2145	0	0	1	0	0	0	0	0	1	1.00
2145 - 2200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	3	0	0	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.75	0.75
2200 - 2215	0	0	2	0	0	0	0	0	2	2.00
2215 - 2230	0	0	0	0	0	0	0	0	0	0.00
2230 - 2245	0	0	0	0	0	0	0	0	0	0.00
2245 - 2300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	2	0	0	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.50
2300 - 2315	0	0	0	0	0	0	0	0	0	0.00
2315 - 2330	0	0	0	0	0	0	0	0	0	0.00
2330 - 2345	0	0	0	0	0	0	0	0	0	0.00
2345 - 0000	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
Session Total	0	1	356	1	58	3	1	0	420	422.20
Session Average	0.00	0.01	3.71	0.01	0.60	0.03	0.01	0.00	4.38	4.40

1145 - 1200	0	0	8	0	3	0	0	0	11	11.00
Hourly Total	0	0	19	0	5	0	1	0	25	26.30
Hourly Average	0.00	0.00	4.75	0.00	1.25	0.00	0.25	0.00	6.25	6.58
1200 - 1215	0	0	5	0	2	0	0	0	7	7.00
1215 - 1230	0	0	8	0	1	0	0	0	9	9.00
1230 - 1245	0	0	6	0	0	0	0	0	6	6.00
1245 - 1300	0	0	15	0	1	0	0	0	16	16.00
Hourly Total	0	0	34	0	4	0	0	0	38	38.00
Hourly Average	0.00	0.00	8.50	0.00	1.00	0.00	0.00	0.00	9.50	9.50
1300 - 1315	0	0	14	0	2	0	0	0	16	16.00
1315 - 1330	0	0	10	0	1	0	0	0	11	11.00
1330 - 1345	0	0	8	0	1	0	0	0	9	9.00
1345 - 1400	0	0	9	0	2	0	0	0	11	11.00
Hourly Total	0	0	41	0	6	0	0	0	47	47.00
Hourly Average	0.00	0.00	10.25	0.00	1.50	0.00	0.00	0.00	11.75	11.75
1400 - 1415	0	0	5	0	4	0	0	0	9	9.00
1415 - 1430	0	0	10	0	1	0	0	0	11	11.00
1430 - 1445	0	0	8	0	1	0	0	0	9	9.00
1445 - 1500	0	0	9	0	0	0	0	0	9	9.00
Hourly Total	0	0	32	0	6	0	0	0	38	38.00
Hourly Average	0.00	0.00	8.00	0.00	1.50	0.00	0.00	0.00	9.50	9.50
1500 - 1515	0	0	2	0	3	0	0	0	5	5.00
1515 - 1530	0	0	4	0	2	0	0	0	6	6.00
1530 - 1545	0	0	7	0	1	0	0	0	8	8.00
1545 - 1600	0	0	2	0	3	0	0	0	5	5.00
Hourly Total	0	0	15	0	9	0	0	0	24	24.00
Hourly Average	0.00	0.00	3.75	0.00	2.25	0.00	0.00	0.00	6.00	6.00
1600 - 1615	0	0	6	0	1	0	0	0	7	7.00
1615 - 1630	0	0	4	0	0	0	0	0	4	4.00
1630 - 1645	0	0	2	0	0	0	0	0	2	2.00
1645 - 1700	0	0	1	0	1	0	0	0	2	2.00
Hourly Total	0	0	13	0	2	0	0	0	15	15.00
Hourly Average	0.00	0.00	3.25	0.00	0.50	0.00	0.00	0.00	3.75	3.75
1700 - 1715	0	2	0	0	2	0	0	0	4	2.80
1715 - 1730	0	0	7	0	0	0	0	0	7	7.00
1730 - 1745	0	0	7	0	0	0	0	0	7	7.00
1745 - 1800	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	2	19	0	2	0	0	0	23	21.80
Hourly Average	0.00	0.50	4.75	0.00	0.50	0.00	0.00	0.00	5.75	5.45
1800 - 1815	0	0	7	0	0	0	0	0	7	7.00
1815 - 1830	0	0	6	0	0	0	0	0	6	6.00
1830 - 1845	0	0	4	0	0	0	0	0	4	4.00
1845 - 1900	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	20	0	0	0	0	0	20	20.00
Hourly Average	0.00	0.00	5.00	0.00	0.00	0.00	0.00	0.00	5.00	5.00
1900 - 1915	0	0	3	0	0	0	0	0	3	3.00
1915 - 1930	0	0	4	0	0	0	0	0	4	4.00
1930 - 1945	0	0	1	0	1	0	0	0	2	2.00
1945 - 2000	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	11	0	1	0	0	0	12	12.00
Hourly Average	0.00	0.00	2.75	0.00	0.25	0.00	0.00	0.00	3.00	3.00
2000 - 2015	0	0	1	0	0	0	0	0	1	1.00
2015 - 2030	0	0	2	0	0	0	0	0	2	2.00
2030 - 2045	0	0	0	0	0	0	0	0	0	0.00
2045 - 2100	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	4	0	0	0	0	0	4	4.00
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
2100 - 2115	0	0	4	0	0	0	0	0	4	4.00
2115 - 2130	0	0	2	0	0	0	0	0	2	2.00
2130 - 2145	0	0	1	0	0	0	0	0	1	1.00
2145 - 2200	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	8	0	0	0	0	0	8	8.00
Hourly Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
2200 - 2215	0	0	0	0	0	0	0	0	0	0.00
2215 - 2230	0	0	1	0	0	0	0	0	1	1.00
2230 - 2245	0	0	3	0	0	0	0	0	3	3.00
2245 - 2300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	4	0	0	0	0	0	4	4.00
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
2300 - 2315	0	0	0	0	0	0	0	0	0	0.00
2315 - 2330	0	0	0	0	0	0	0	0	0	0.00
2330 - 2345	0	0	0	0	0	0	0	0	0	0.00
2345 - 0000	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	2	304	0	59	1	1	0	367	367.60
Session Average	0.00	0.02	3.17	0.00	0.61	0.01	0.01	0.00	3.82	3.83

EV Charging Survey
Classified Junction Count

Site 1 of 1
Charging Station Access Entry
Maple Way Exit

Lat/Long
lat 52.628241° lon 1.383515°

Date
Thursday 03 November 2022

Weather
Sunny Intervals
Temp: 11°C

0000 - 2400 (Thursday 24H Session)

Movement 1.2: Northbound from Charging Station Access Entry to Maple Way Exit									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0000 - 0015	0	0	1	0	0	0	0	0	1	1.00
0015 - 0030	0	0	0	0	0	0	0	0	0	0.00
0030 - 0045	0	0	0	0	0	0	0	0	0	0.00
0045 - 0100	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
0100 - 0115	0	0	0	0	0	0	0	0	0	0.00
0115 - 0130	0	0	0	0	0	0	0	0	0	0.00
0130 - 0145	0	0	0	0	0	0	0	0	0	0.00
0145 - 0200	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
0200 - 0215	0	0	0	0	0	0	0	0	0	0.00
0215 - 0230	0	0	0	0	0	0	0	0	0	0.00
0230 - 0245	0	0	0	0	0	0	0	0	0	0.00
0245 - 0300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300 - 0315	0	0	0	0	0	0	0	0	0	0.00
0315 - 0330	0	0	0	0	0	0	0	0	0	0.00
0330 - 0345	0	0	0	0	0	0	0	0	0	0.00
0345 - 0400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400 - 0415	0	0	0	0	0	0	0	0	0	0.00
0415 - 0430	0	0	0	0	0	0	0	0	0	0.00
0430 - 0445	0	0	0	0	0	0	0	0	0	0.00
0445 - 0500	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500 - 0515	0	0	1	0	0	0	0	0	1	1.00
0515 - 0530	0	0	0	0	0	0	0	0	0	0.00
0530 - 0545	0	0	1	0	0	0	0	0	1	1.00
0545 - 0600	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	3	0	0	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.75	0.75
0600 - 0615	0	0	1	0	0	0	0	0	1	1.00
0615 - 0630	0	0	0	0	0	0	0	0	0	0.00
0630 - 0645	0	0	1	0	0	0	0	0	1	1.00
0645 - 0700	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	7	0	0	0	0	0	7	7.00
Hourly Average	0.00	0.00	1.75	0.00	0.00	0.00	0.00	0.00	1.75	1.75
0700 - 0715	0	0	1	0	2	0	0	0	3	3.00
0715 - 0730	0	0	2	0	1	0	0	0	3	3.00
0730 - 0745	0	0	0	0	1	0	0	0	1	1.00
0745 - 0800	0	0	0	0	1	0	0	0	1	1.00
Hourly Total	0	0	3	0	5	0	0	0	8	8.00
Hourly Average	0.00	0.00	0.75	0.00	1.25	0.00	0.00	0.00	2.00	2.00
0800 - 0815	0	0	6	0	1	0	0	0	7	7.00
0815 - 0830	0	0	3	0	3	0	0	0	6	6.00
0830 - 0845	0	0	0	0	0	0	0	0	0	0.00
0845 - 0900	0	0	10	0	4	0	0	0	14	14.00
Hourly Total	0	0	19	0	8	0	0	0	27	27.00
Hourly Average	0.00	0.00	4.75	0.00	2.00	0.00	0.00	0.00	6.75	6.75
0900 - 0915	0	0	6	0	1	1	0	0	8	8.50
0915 - 0930	0	0	6	0	4	0	0	0	10	10.00
0930 - 0945	0	0	3	0	1	0	0	0	4	4.00
0945 - 1000	0	0	14	0	0	0	0	0	14	14.00
Hourly Total	0	0	29	0	6	1	0	0	36	36.50
Hourly Average	0.00	0.00	7.25	0.00	1.50	0.25	0.00	0.00	9.00	9.13
1000 - 1015	0	0	7	0	1	0	0	0	8	8.00
1015 - 1030	0	0	7	0	3	0	0	0	10	10.00
1030 - 1045	0	0	2	0	0	0	0	0	2	2.00
1045 - 1100	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	0	0	22	0	4	0	0	0	26	26.00
Hourly Average	0.00	0.00	5.50	0.00	1.00	0.00	0.00	0.00	6.50	6.50
1100 - 1115	0	0	4	0	0	0	0	0	4	4.00
1115 - 1130	0	0	1	0	1	0	1	0	3	4.30
1130 - 1145	0	0	6	0	1	0	0	0	7	7.00

EV Charging Survey
Classified Junction Count

Site 1 of 1
Charging Station Access Entry
Maple Way Exit

Lat/Long
lat 52.628241° lon 1.383515°

Date
Thursday 03 November 2022

Weather
Sunny Intervals
Temp: 11°C

0000 - 2400 (Thursday 24H Session)

Movement 1.1: Southbound from Maple Way Exit to Charging Station Access Entry									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0000 - 0015	0	0	0	0	0	0	0	0	0	0.00
0015 - 0030	0	0	0	0	0	0	0	0	0	0.00
0030 - 0045	0	0	0	0	0	0	0	0	0	0.00
0045 - 0100	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100 - 0115	0	0	0	0	0	0	0	0	0	0.00
0115 - 0130	0	0	0	0	0	0	0	0	0	0.00
0130 - 0145	0	0	0	0	1	0	0	0	1	1.00
0145 - 0200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	1	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.25
0200 - 0215	0	0	0	0	0	0	0	0	0	0.00
0215 - 0230	0	0	0	0	0	0	0	0	0	0.00
0230 - 0245	0	0	0	0	0	0	0	0	0	0.00
0245 - 0300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300 - 0315	0	0	0	0	0	0	0	0	0	0.00
0315 - 0330	0	0	0	0	0	0	0	0	0	0.00
0330 - 0345	0	0	0	0	0	0	0	0	0	0.00
0345 - 0400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400 - 0415	0	0	0	0	0	0	0	0	0	0.00
0415 - 0430	0	0	0	0	0	0	0	0	0	0.00
0430 - 0445	0	0	0	0	0	0	0	0	0	0.00
0445 - 0500	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500 - 0515	0	0	1	0	1	0	0	0	2	2.00
0515 - 0530	0	0	2	0	0	0	0	0	2	2.00
0530 - 0545	0	0	0	0	0	0	0	0	0	0.00
0545 - 0600	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	3	0	1	0	0	0	4	4.00
Hourly Average	0.00	0.00	0.75	0.00	0.25	0.00	0.00	0.00	1.00	1.00
0600 - 0615	0	0	0	0	0	0	0	0	0	0.00
0615 - 0630	0	0	2	0	0	0	0	0	2	2.00
0630 - 0645	0	0	5	0	0	0	0	0	5	5.00
0645 - 0700	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	8	0	0	0	0	0	8	8.00
Hourly Average	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00
0700 - 0715	0	0	3	0	3	0	0	0	6	6.00
0715 - 0730	0	0	2	0	2	0	0	0	4	4.00
0730 - 0745	0	0	1	0	1	0	0	0	2	2.00
0745 - 0800	0	1	1	0	1	0	0	0	3	2.40
Hourly Total	0	1	7	0	7	0	0	0	15	14.40
Hourly Average	0.00	0.25	1.75	0.00	1.75	0.00	0.00	0.00	3.75	3.60
0800 - 0815	0	0	8	0	1	1	0	0	10	10.50
0815 - 0830	0	0	5	0	2	0	0	0	7	7.00
0830 - 0845	0	0	3	0	0	0	0	0	3	3.00
0845 - 0900	0	0	10	0	2	0	0	0	12	12.00
Hourly Total	0	0	26	0	5	1	0	0	32	32.50
Hourly Average	0.00	0.00	6.50	0.00	1.25	0.25	0.00	0.00	8.00	8.13
0900 - 0915	0	0	9	0	2	0	0	0	11	11.00
0915 - 0930	0	0	6	0	4	0	0	0	10	10.00
0930 - 0945	0	0	5	0	2	0	0	0	7	7.00
0945 - 1000	0	0	14	0	0	0	0	0	14	14.00
Hourly Total	0	0	34	0	8	0	0	0	42	42.00
Hourly Average	0.00	0.00	8.50	0.00	2.00	0.00	0.00	0.00	10.50	10.50
1000 - 1015	0	0	5	0	1	0	0	0	6	6.00
1015 - 1030	0	0	5	0	3	0	0	0	8	8.00
1030 - 1045	0	0	2	0	0	0	0	0	2	2.00
1045 - 1100	0	0	5	0	0	0	0	0	5	5.00
Hourly Total	0	0	17	0	4	0	0	0	21	21.00
Hourly Average	0.00	0.00	4.25	0.00	1.00	0.00	0.00	0.00	5.25	5.25
1100 - 1115	0	0	5	0	1	0	1	0	7	8.30
1115 - 1130	0	0	3	0	1	0	0	0	4	4.00
1130 - 1145	0	0	10	0	2	0	0	0	12	12.00

EV Charging Survey
Classified Junction Count

Site 1 of 1

Car Park Access Entry
Car Park Access Exit

Lat/Long

lat 51.852558° lon 0.520747°

Date

Thursday 03 November 2022

Weather

Sunny Intervals
Temp: 11°C

0000 - 2400 (Thursday 24H Session)

Movement 1.2: Northbound from Car Park Access Entry to Car Park Access Exit									Original Data	
TIME	P/CYCLE	M/CYCLE	CAR	TAXI	LGV	OGV1	OGV2	BUS/COACH	TOTAL	PCU TOTAL
0000 - 0015	0	0	0	0	0	0	0	0	0	0.00
0015 - 0030	0	0	0	0	0	0	0	0	0	0.00
0030 - 0045	0	0	0	0	0	0	0	0	0	0.00
0045 - 0100	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100 - 0115	0	0	0	0	0	0	0	0	0	0.00
0115 - 0130	0	0	0	0	0	0	0	0	0	0.00
0130 - 0145	0	0	0	0	0	0	0	0	0	0.00
0145 - 0200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200 - 0215	0	0	0	0	0	0	0	0	0	0.00
0215 - 0230	0	0	0	0	0	0	0	0	0	0.00
0230 - 0245	0	0	0	0	0	0	0	0	0	0.00
0245 - 0300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300 - 0315	0	0	0	0	0	0	0	0	0	0.00
0315 - 0330	0	0	0	0	0	0	0	0	0	0.00
0330 - 0345	0	0	0	0	0	0	0	0	0	0.00
0345 - 0400	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400 - 0415	0	0	0	0	0	0	0	0	0	0.00
0415 - 0430	0	0	0	0	0	0	0	0	0	0.00
0430 - 0445	0	0	0	0	0	0	0	0	0	0.00
0445 - 0500	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500 - 0515	0	0	0	0	0	0	0	0	0	0.00
0515 - 0530	0	0	0	0	0	0	0	0	0	0.00
0530 - 0545	0	0	0	0	0	0	0	0	0	0.00
0545 - 0600	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600 - 0615	0	0	0	0	1	0	0	0	1	1.00
0615 - 0630	0	0	2	0	0	0	0	0	2	2.00
0630 - 0645	0	0	2	0	0	0	0	0	2	2.00
0645 - 0700	0	0	4	0	2	0	0	0	6	6.00
Hourly Total	0	0	8	0	3	0	0	0	11	11.00
Hourly Average	0.00	0.00	2.00	0.00	0.75	0.00	0.00	0.00	2.75	2.75
0700 - 0715	0	0	1	0	0	0	0	0	1	1.00
0715 - 0730	0	0	6	0	3	0	0	0	9	9.00
0730 - 0745	0	0	5	0	1	0	0	0	6	6.00
0745 - 0800	0	0	7	0	1	0	0	0	8	8.00
Hourly Total	0	0	19	0	5	0	0	0	24	24.00
Hourly Average	0.00	0.00	4.75	0.00	1.25	0.00	0.00	0.00	6.00	6.00
0800 - 0815	0	0	4	0	2	0	0	0	6	6.00
0815 - 0830	0	0	5	0	1	0	0	0	6	6.00
0830 - 0845	0	0	2	0	0	0	0	0	2	2.00
0845 - 0900	0	0	4	0	1	1	0	0	6	6.50
Hourly Total	0	0	15	0	4	1	0	0	20	20.50
Hourly Average	0.00	0.00	3.75	0.00	1.00	0.25	0.00	0.00	5.00	5.13
0900 - 0915	0	0	7	0	2	0	0	0	9	9.00
0915 - 0930	0	0	7	0	2	0	0	0	9	9.00
0930 - 0945	0	0	7	0	1	0	0	0	8	8.00
0945 - 1000	0	0	1	0	1	0	1	0	3	4.30
Hourly Total	0	0	22	0	6	0	1	0	29	30.30
Hourly Average	0.00	0.00	5.50	0.00	1.50	0.00	0.25	0.00	7.25	7.58
1000 - 1015	0	0	1	0	1	0	0	0	2	2.00
1015 - 1030	0	0	3	0	1	0	0	0	4	4.00
1030 - 1045	0	0	4	0	2	0	0	0	6	6.00
1045 - 1100	0	0	8	0	1	0	0	0	9	9.00
Hourly Total	0	0	16	0	5	0	0	0	21	21.00
Hourly Average	0.00	0.00	4.00	0.00	1.25	0.00	0.00	0.00	5.25	5.25
1100 - 1115	0	0	7	0	2	0	0	0	9	9.00
1115 - 1130	0	0	7	0	0	0	0	0	7	7.00
1130 - 1145	0	0	10	0	2	0	0	0	12	12.00

1145 - 1200	0	0	12	0	0	0	0	0	12	12.00
Hourly Total	0	0	36	0	4	0	0	0	40	40.00
Hourly Average	0.00	0.00	9.00	0.00	1.00	0.00	0.00	0.00	10.00	10.00
1200 - 1215	0	0	5	0	0	0	0	0	5	5.00
1215 - 1230	0	0	11	0	0	0	0	0	11	11.00
1230 - 1245	0	0	7	0	0	0	0	0	7	7.00
1245 - 1300	0	0	10	0	0	0	0	0	10	10.00
Hourly Total	0	0	33	0	0	0	0	0	33	33.00
Hourly Average	0.00	0.00	8.25	0.00	0.00	0.00	0.00	0.00	8.25	8.25
1300 - 1315	0	0	10	0	6	0	0	0	16	16.00
1315 - 1330	0	0	7	0	0	0	0	0	7	7.00
1330 - 1345	0	0	6	0	0	0	0	0	6	6.00
1345 - 1400	0	0	11	0	1	0	0	0	12	12.00
Hourly Total	0	0	34	0	7	0	0	0	41	41.00
Hourly Average	0.00	0.00	8.50	0.00	1.75	0.00	0.00	0.00	10.25	10.25
1400 - 1415	0	0	12	0	3	0	0	0	15	15.00
1415 - 1430	0	0	6	0	1	0	0	0	7	7.00
1430 - 1445	0	0	12	0	4	0	0	0	16	16.00
1445 - 1500	0	0	11	0	2	0	0	0	13	13.00
Hourly Total	0	0	41	0	10	0	0	0	51	51.00
Hourly Average	0.00	0.00	10.25	0.00	2.50	0.00	0.00	0.00	12.75	12.75
1500 - 1515	0	0	8	0	1	1	0	0	10	10.50
1515 - 1530	0	0	10	0	1	0	0	0	11	11.00
1530 - 1545	0	0	12	1	4	1	0	0	18	18.50
1545 - 1600	0	1	9	0	1	0	0	0	11	10.40
Hourly Total	0	1	39	1	7	2	0	0	50	50.40
Hourly Average	0.00	0.25	9.75	0.25	1.75	0.50	0.00	0.00	12.50	12.60
1600 - 1615	0	0	7	0	2	0	0	0	9	9.00
1615 - 1630	0	0	10	0	0	0	0	0	10	10.00
1630 - 1645	0	0	9	0	2	0	0	0	11	11.00
1645 - 1700	0	0	3	0	1	0	0	0	4	4.00
Hourly Total	0	0	29	0	5	0	0	0	34	34.00
Hourly Average	0.00	0.00	7.25	0.00	1.25	0.00	0.00	0.00	8.50	8.50
1700 - 1715	0	0	3	0	0	0	0	0	3	3.00
1715 - 1730	0	0	6	0	0	0	0	0	6	6.00
1730 - 1745	0	0	12	0	0	0	0	0	12	12.00
1745 - 1800	0	0	3	0	1	0	0	0	4	4.00
Hourly Total	0	0	24	0	1	0	0	0	25	25.00
Hourly Average	0.00	0.00	6.00	0.00	0.25	0.00	0.00	0.00	6.25	6.25
1800 - 1815	0	0	2	0	1	0	0	0	3	3.00
1815 - 1830	0	0	1	0	0	0	0	0	1	1.00
1830 - 1845	0	0	9	0	0	0	0	0	9	9.00
1845 - 1900	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	16	0	1	0	0	0	17	17.00
Hourly Average	0.00	0.00	4.00	0.00	0.25	0.00	0.00	0.00	4.25	4.25
1900 - 1915	0	0	1	0	0	0	0	0	1	1.00
1915 - 1930	0	0	0	0	0	0	0	0	0	0.00
1930 - 1945	0	0	2	0	0	0	0	0	2	2.00
1945 - 2000	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	4	0	0	0	0	0	4	4.00
Hourly Average	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
2000 - 2015	0	0	2	0	0	0	0	0	2	2.00
2015 - 2030	0	0	0	0	0	0	0	0	0	0.00
2030 - 2045	0	0	1	0	0	0	0	0	1	1.00
2045 - 2100	0	0	3	0	0	0	0	0	3	3.00
Hourly Total	0	0	6	0	0	0	0	0	6	6.00
Hourly Average	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	1.50	1.50
2100 - 2115	0	0	1	0	0	0	0	0	1	1.00
2115 - 2130	0	0	3	0	0	0	0	0	3	3.00
2130 - 2145	0	0	7	0	0	0	0	0	7	7.00
2145 - 2200	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	11	0	0	0	0	0	11	11.00
Hourly Average	0.00	0.00	2.75	0.00	0.00	0.00	0.00	0.00	2.75	2.75
2200 - 2215	0	0	0	0	0	0	0	0	0	0.00
2215 - 2230	0	0	2	0	0	0	0	0	2	2.00
2230 - 2245	0	0	0	0	0	0	0	0	0	0.00
2245 - 2300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	2	0	0	0	0	0	2	2.00
Hourly Average	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.50	0.50
2300 - 2315	0	0	0	0	0	0	0	0	0	0.00
2315 - 2330	0	0	0	0	0	0	0	0	0	0.00
2330 - 2345	0	0	0	0	0	0	0	0	0	0.00
2345 - 0000	0	0	1	0	0	0	0	0	1	1.00
Hourly Total	0	0	1	0	0	0	0	0	1	1.00
Hourly Average	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.25	0.25
Session Total	0	1	356	1	58	3	1	0	420	422.20
Session Average	0.00	0.01	3.71	0.01	0.60	0.03	0.01	0.00	4.38	4.40

1145 - 1200	0	0	6	0	2	0	0	0	8	8.00
Hourly Total	0	0	24	0	6	0	1	0	31	32.30
Hourly Average	0.00	0.00	6.00	0.00	1.50	0.00	0.25	0.00	7.75	8.08
1200 - 1215	0	0	8	0	0	0	0	0	8	8.00
1215 - 1230	0	0	6	0	1	0	0	0	7	7.00
1230 - 1245	0	0	9	0	2	0	0	0	11	11.00
1245 - 1300	0	0	6	0	1	0	0	0	7	7.00
Hourly Total	0	0	29	0	4	0	0	0	33	33.00
Hourly Average	0.00	0.00	7.25	0.00	1.00	0.00	0.00	0.00	8.25	8.25
1300 - 1315	0	0	13	0	1	0	0	0	14	14.00
1315 - 1330	0	0	8	0	1	0	0	0	9	9.00
1330 - 1345	0	0	11	0	0	0	0	0	11	11.00
1345 - 1400	0	0	9	0	4	0	0	0	13	13.00
Hourly Total	0	0	41	0	6	0	0	0	47	47.00
Hourly Average	0.00	0.00	10.25	0.00	1.50	0.00	0.00	0.00	11.75	11.75
1400 - 1415	0	0	5	0	3	0	0	0	8	8.00
1415 - 1430	0	0	6	0	1	0	0	0	7	7.00
1430 - 1445	0	0	5	0	2	0	0	0	7	7.00
1445 - 1500	0	0	5	0	1	0	0	0	6	6.00
Hourly Total	0	0	21	0	7	0	0	0	28	28.00
Hourly Average	0.00	0.00	5.25	0.00	1.75	0.00	0.00	0.00	7.00	7.00
1500 - 1515	0	0	2	0	4	0	0	0	6	6.00
1515 - 1530	0	0	9	0	1	0	0	0	10	10.00
1530 - 1545	0	0	4	0	2	0	0	0	6	6.00
1545 - 1600	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	17	0	7	0	0	0	24	24.00
Hourly Average	0.00	0.00	4.25	0.00	1.75	0.00	0.00	0.00	6.00	6.00
1600 - 1615	0	0	3	0	0	0	0	0	3	3.00
1615 - 1630	0	0	4	0	0	0	0	0	4	4.00
1630 - 1645	0	0	3	0	0	0	0	0	3	3.00
1645 - 1700	0	0	2	0	1	0	0	0	3	3.00
Hourly Total	0	0	12	0	1	0	0	0	13	13.00
Hourly Average	0.00	0.00	3.00	0.00	0.25	0.00	0.00	0.00	3.25	3.25
1700 - 1715	0	1	4	0	1	0	0	0	6	5.40
1715 - 1730	0	0	3	0	0	0	0	0	3	3.00
1730 - 1745	0	0	8	0	0	0	0	0	8	8.00
1745 - 1800	0	0	6	0	0	0	0	0	6	6.00
Hourly Total	0	1	21	0	1	0	0	0	23	22.40
Hourly Average	0.00	0.25	5.25	0.00	0.25	0.00	0.00	0.00	5.75	5.60
1800 - 1815	0	0	4	0	0	0	0	0	4	4.00
1815 - 1830	0	0	7	0	0	0	0	0	7	7.00
1830 - 1845	0	0	3	0	0	0	0	0	3	3.00
1845 - 1900	0	0	4	0	0	0	0	0	4	4.00
Hourly Total	0	0	18	0	0	0	0	0	18	18.00
Hourly Average	0.00	0.00	4.50	0.00	0.00	0.00	0.00	0.00	4.50	4.50
1900 - 1915	0	0	3	0	0	0	0	0	3	3.00
1915 - 1930	0	0	2	0	1	0	0	0	3	3.00
1930 - 1945	0	0	2	0	0	0	0	0	2	2.00
1945 - 2000	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	9	0	1	0	0	0	10	10.00
Hourly Average	0.00	0.00	2.25	0.00	0.25	0.00	0.00	0.00	2.50	2.50
2000 - 2015	0	0	1	0	0	0	0	0	1	1.00
2015 - 2030	0	0	3	0	0	0	0	0	3	3.00
2030 - 2045	0	0	1	0	0	0	0	0	1	1.00
2045 - 2100	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	5	0	0	0	0	0	5	5.00
Hourly Average	0.00	0.00	1.25	0.00	0.00	0.00	0.00	0.00	1.25	1.25
2100 - 2115	0	0	4	0	0	0	0	0	4	4.00
2115 - 2130	0	0	0	0	0	0	0	0	0	0.00
2130 - 2145	0	0	1	0	0	0	0	0	1	1.00
2145 - 2200	0	0	2	0	0	0	0	0	2	2.00
Hourly Total	0	0	7	0	0	0	0	0	7	7.00
Hourly Average	0.00	0.00	1.75	0.00	0.00	0.00	0.00	0.00	1.75	1.75
2200 - 2215	0	0	0	0	0	0	0	0	0	0.00
2215 - 2230	0	0	0	0	0	0	0	0	0	0.00
2230 - 2245	0	0	3	0	0	0	0	0	3	3.00
2245 - 2300	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	3	0	0	0	0	0	3	3.00
Hourly Average	0.00	0.00	0.75	0.00	0.00	0.00	0.00	0.00	0.75	0.75
2300 - 2315	0	0	0	0	0	0	0	0	0	0.00
2315 - 2330	0	0	0	0	0	0	0	0	0	0.00
2330 - 2345	0	0	0	0	0	0	0	0	0	0.00
2345 - 0000	0	0	0	0	0	0	0	0	0	0.00
Hourly Total	0	0	0	0	0	0	0	0	0	0.00
Hourly Average	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Session Total	0	2	302	0	59	1	1	0	365	365.60
Session Average	0.00	0.02	3.15	0.00	0.61	0.01	0.01	0.00	3.80	3.81

APPENDIX C - TRICS REPORTS

Calculation Reference: AUDIT-860401-221025-1003

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 06 - HOTEL, FOOD & DRINK

Category : A - HOTELS

TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST	
	HC HAMPSHIRE	2 days
03	SOUTH WEST	
	WL WILTSHIRE	1 days
06	WEST MIDLANDS	
	WM WEST MIDLANDS	1 days
	WO WORCESTERSHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
10	WALES	
	SW SWANSEA	1 days

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

Primary Filtering selection:

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

Parameter: Number of bedrooms

Actual Range: 40 to 124 (units:)

Range Selected by User: 4 to 125 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/14 to 12/11/21

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

Selected survey days:

Monday	3 days
Tuesday	1 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	7 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	1
Edge of Town	5
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Industrial Zone	2
Development Zone	2
Village	1
Out of Town	1
No Sub Category	1

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

Secondary Filtering selection:

Use Class:

C1 7 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,001 to 5,000 1 days

5,001 to 10,000 3 days

10,001 to 15,000 3 days

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

Population within 5 miles:

5,001 to 25,000 1 days

25,001 to 50,000 1 days

125,001 to 250,000 2 days

250,001 to 500,000 3 days

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

Car ownership within 5 miles:

0.6 to 1.0 4 days

1.1 to 1.5 3 days

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

Travel Plan:

No 7 days

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

PTAL Rating:

No PTAL Present 7 days

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

LIST OF SITES relevant to selection parameters

1	HC-06-A-07 COVE ROAD FLEET	TRAVELODGE		HAMPSHIRE
	Edge of Town Out of Town Total Number of bedrooms:	40		
	Survey date: THURSDAY	09/09/21	Survey Type: MANUAL	
2	HC-06-A-08 CARTWRIGHT DRIVE PARK GATE	HOLIDAY INN		HAMPSHIRE
	Edge of Town Industrial Zone Total Number of bedrooms:	124		
	Survey date: MONDAY	18/10/21	Survey Type: MANUAL	
3	SW-06-A-01 FABIAN WAY SWANSEA PORT TENNANT	IBIS		SWANSEA
	Edge of Town Development Zone Total Number of bedrooms:	99		
	Survey date: MONDAY	07/10/19	Survey Type: MANUAL	
4	TW-06-A-02 CASPER WAY GATESHEAD SWALWELL	TRAVELODGE		TYNE & WEAR
	Suburban Area (PPS6 Out of Centre) Development Zone Total Number of bedrooms:	60		
	Survey date: FRIDAY	13/11/15	Survey Type: MANUAL	
5	WL-06-A-03 LAWRENCE HILL WINCANTON	TRAVELODGE		WILTSHIRE
	Edge of Town No Sub Category Total Number of bedrooms:	57		
	Survey date: TUESDAY	18/09/18	Survey Type: MANUAL	
6	WM-06-A-05 BIRMINGHAM ROAD BIRMINGHAM HOPWOOD	HOTEL		WEST MIDLANDS
	Neighbourhood Centre (PPS6 Local Centre) Village Total Number of bedrooms:	56		
	Survey date: MONDAY	09/11/15	Survey Type: MANUAL	
7	WO-06-A-04 GROVEWOOD ROAD MALVERN	PREMIER INN		WORCESTERSHIRE
	Edge of Town Industrial Zone Total Number of bedrooms:	64		
	Survey date: FRIDAY	12/11/21	Survey Type: MANUAL	

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
GS-06-A-03	COVID

TRIP RATE for Land Use 06 - HOTEL, FOOD & DRINK/A - HOTELS

TOTAL VEHICLES

Calculation factor: 1 BEDRMS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate	No. Days	Ave. BEDRMS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	7	71	0.048	7	71	0.174	7	71	0.222
08:00 - 09:00	7	71	0.088	7	71	0.186	7	71	0.274
09:00 - 10:00	7	71	0.154	7	71	0.168	7	71	0.322
10:00 - 11:00	7	71	0.088	7	71	0.138	7	71	0.226
11:00 - 12:00	7	71	0.086	7	71	0.132	7	71	0.218
12:00 - 13:00	7	71	0.082	7	71	0.090	7	71	0.172
13:00 - 14:00	7	71	0.082	7	71	0.072	7	71	0.154
14:00 - 15:00	7	71	0.174	7	71	0.134	7	71	0.308
15:00 - 16:00	7	71	0.126	7	71	0.090	7	71	0.216
16:00 - 17:00	7	71	0.172	7	71	0.110	7	71	0.282
17:00 - 18:00	7	71	0.236	7	71	0.152	7	71	0.388
18:00 - 19:00	7	71	0.230	7	71	0.134	7	71	0.364
19:00 - 20:00	7	71	0.154	7	71	0.126	7	71	0.280
20:00 - 21:00	7	71	0.114	7	71	0.078	7	71	0.192
21:00 - 22:00	7	71	0.054	7	71	0.046	7	71	0.100
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			1.888			1.830			3.718

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

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

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Parameter summary

Trip rate parameter range selected: 40 - 124 (units:)
 Survey date range: 01/01/14 - 12/11/21
 Number of weekdays (Monday-Friday): 7
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys automatically removed from selection: 0
 Surveys manually removed from selection: 1

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

Calculation Reference: AUDIT-860401-221025-1033

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 13 - PETROL FILLING STATIONS
 Category : B - PFS - WITH RETAIL
 TOTAL VEHICLES

Selected regions and areas:

03	SOUTH WEST	
	BC BOURNEMOUTH CHRISTCHURCH & POOLE	1 days
	BR BRISTOL CITY	1 days
	TB TORBAY	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NY NORTH YORKSHIRE	1 days
08	NORTH WEST	
	LC LANCASHIRE	1 days
09	NORTH	
	TW TYNE & WEAR	1 days
11	SCOTLAND	
	EB CITY OF EDINBURGH	1 days
	FI FIFE	1 days

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

Primary Filtering selection:

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

Parameter: Filling bays
 Actual Range: 6 to 15 (units:)
 Range Selected by User: 4 to 16 (units:)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/12 to 19/11/21

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

Selected survey days:

Monday	1 days
Tuesday	3 days
Wednesday	3 days
Thursday	1 days
Friday	2 days

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

Selected survey types:

Manual count	10 days
Directional ATC Count	0 days

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

Selected Locations:

Suburban Area (PPS6 Out of Centre)	4
Edge of Town	5
Neighbourhood Centre (PPS6 Local Centre)	1

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

Selected Location Sub Categories:

Residential Zone	7
Retail Zone	1

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

Secondary Filtering selection:

Use Class:

Sui Generis 10 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:

All Surveys Included

Population within 1 mile:

1,000 or Less	1 days
1,001 to 5,000	1 days
5,001 to 10,000	2 days
10,001 to 15,000	1 days
15,001 to 20,000	1 days
20,001 to 25,000	2 days
25,001 to 50,000	2 days

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

Population within 5 miles:

25,001 to 50,000	1 days
75,001 to 100,000	2 days
100,001 to 125,000	1 days
125,001 to 250,000	4 days
250,001 to 500,000	2 days

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

Car ownership within 5 miles:

0.5 or Less	1 days
0.6 to 1.0	2 days
1.1 to 1.5	6 days
1.6 to 2.0	1 days

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

Travel Plan:

No 10 days

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

PTAL Rating:

No PTAL Present 10 days

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

LIST OF SITES relevant to selection parameters

1	BC-13-B-01 271 BARRACK ROAD CHRISTCHURCH	ESSO & TESCO EXPRESS	BOURNEMOUTH CHRISTCHURCH & POOLE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Filling bays: 6 Survey date: MONDAY 24/03/14		Survey Type: MANUAL
2	BR-13-B-02 EASTGATE ROAD BRISTOL	TESCO EXTRA PFS	BRISTOL CITY
	Suburban Area (PPS6 Out of Centre) Retail Zone Total Filling bays: 12 Survey date: TUESDAY 09/11/21		Survey Type: MANUAL
3	EB-13-B-02 BULLYEON ROAD QUEENSFERRY	BP CONNECT & M&S SIMPLY FOOD	CITY OF EDINBURGH
	Edge of Town Residential Zone Total Filling bays: 15 Survey date: THURSDAY 26/06/14		Survey Type: MANUAL
4	FI-13-B-01 HARBOUR DRIVE DALGETY BAY	BP & M&S SIMPLY FOOD	FIFE
	Edge of Town No Sub Category Total Filling bays: 13 Survey date: WEDNESDAY 23/03/16		Survey Type: MANUAL
5	LC-13-B-03 GARSTANG ROAD PRESTON FULWOOD	TEXACO & MORRISONS DAILY	LANCASHIRE
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Filling bays: 8 Survey date: TUESDAY 06/11/18		Survey Type: MANUAL
6	LN-13-B-01 CARHOLME ROAD LINCOLN	GULF & CO-OP	LINCOLNSHIRE
	Edge of Town Residential Zone Total Filling bays: 8 Survey date: WEDNESDAY 04/10/17		Survey Type: MANUAL
7	NY-13-B-05 YORK ROAD NEAR YORK ESCRICK	SHELL & SPAR	NORTH YORKSHIRE
	Neighbourhood Centre (PPS6 Local Centre) Village Total Filling bays: 8 Survey date: WEDNESDAY 22/09/21		Survey Type: MANUAL
8	SF-13-B-02 ROUGHAM ROAD BURY ST EDMUNDS	BP CONNECT & M&S	SUFFOLK
	Edge of Town Residential Zone Total Filling bays: 8 Survey date: FRIDAY 19/07/13		Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

9	TB-13-B-01 TORBAY ROAD PAIGNTON	BP & COSTCUTTER	TORBAY
	Edge of Town Residential Zone Total Filling bays:	8	
	Survey date: TUESDAY	18/07/17	Survey Type: MANUAL
10	TW-13-B-05 THE BROADWAY SUNDERLAND	SHELL & SPAR	TYNE & WEAR
	Suburban Area (PPS6 Out of Centre) Residential Zone Total Filling bays:	6	
	Survey date: FRIDAY	24/05/19	Survey Type: MANUAL

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

MANUALLY DESELECTED SITES

Site Ref	Reason for Deselection
BC-13-B-02	Accessed from more minor road
CA-13-B-02	Accessed from more minor road
DB-13-B-02	Accessed from more minor road
DY-13-B-01	Accessed from more minor road
GM-13-B-02	COVID
LE-13-B-02	Accessed from more minor road
MM-13-B-01	Limited two-way access
MS-13-B-01	Accessed from more minor road
NG-13-B-02	Associated with a supermarket
NY-13-B-02	Accessed from more minor road
NY-13-B-03	Accessed from more minor road
SF-13-B-01	Associated with a supermarket
WM-13-B-05	Accessed from more minor road
WO-13-B-02	Associated with a supermarket

TRIP RATE for Land Use 13 - PETROL FILLING STATIONS/B - PFS - WITH RETAIL

TOTAL VEHICLES

Calculation factor: 1 BAYS

BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. BAYS	Trip Rate	No. Days	Ave. BAYS	Trip Rate	No. Days	Ave. BAYS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00	10	9	4.717	10	9	4.424	10	9	9.141
07:00 - 08:00	10	9	7.576	10	9	7.370	10	9	14.946
08:00 - 09:00	10	9	7.652	10	9	7.489	10	9	15.141
09:00 - 10:00	10	9	7.446	10	9	7.467	10	9	14.913
10:00 - 11:00	10	9	6.902	10	9	6.946	10	9	13.848
11:00 - 12:00	10	9	7.000	10	9	7.054	10	9	14.054
12:00 - 13:00	10	9	8.707	10	9	8.424	10	9	17.131
13:00 - 14:00	10	9	7.826	10	9	7.826	10	9	15.652
14:00 - 15:00	10	9	7.467	10	9	7.130	10	9	14.597
15:00 - 16:00	10	9	7.076	10	9	7.446	10	9	14.522
16:00 - 17:00	10	9	7.772	10	9	8.065	10	9	15.837
17:00 - 18:00	10	9	8.565	10	9	8.457	10	9	17.022
18:00 - 19:00	10	9	7.880	10	9	8.109	10	9	15.989
19:00 - 20:00	10	9	6.283	10	9	6.315	10	9	12.598
20:00 - 21:00	10	9	5.239	10	9	5.152	10	9	10.391
21:00 - 22:00	10	9	3.652	10	9	3.837	10	9	7.489
22:00 - 23:00	2	10	1.750	2	10	2.000	2	10	3.750
23:00 - 24:00	2	10	0.450	2	10	0.650	2	10	1.100
Total Rates:			113.960				114.161	228.121	

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

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

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Parameter summary

Trip rate parameter range selected:	6 - 15 (units:)
Survey date range:	01/01/12 - 19/11/21
Number of weekdays (Monday-Friday):	10
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	1
Surveys manually removed from selection:	14

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



Hannah Atkins
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73-81 Southwark Bridge Road
London
SE1 0NQ

Highways and Transportation

Ashford Highway Depot
4 Javelin Way
Ashford
TN24 8AD

Tel: 03000 418181

Date: 15 December 2022

Our Ref:

Application - PAP/2022/134

Location - Former Tollgate Hotel, Watling Street, Gravesend

Proposal - Redevelopment of former Tollgate Hotel to provide a 12 pump petrol filling station, 24 Electric Vehicle charging bay facility and ancillary retail uses

I refer to your request for highways pre-application advice regarding the above proposal. You have submitted a Transport Assessment Scoping Note which appears to cover all of the highway issues that need to be included in a Transport Assessment to be submitted in support of a future planning application. I have now had the opportunity to study the Scoping Note and would make the following comments:

1. Whilst I agree that the PFS is unlikely to generate any new trips since there is already another PFS in the vicinity, I note that you propose no new trips to the EV charging station since the locals would tend to use slower on-street or residential chargers. I am not convinced that a proportion of residents would not use the fast-charging facilities offered and an allowance should be included for those users. I am not sure if any data is available in other EV charging station locations for these users, but it should be investigated.
2. The E/W track that runs along the northern side of the site is a cycle route so it should be at least 3.0m wide to form a shared footpath / cycleway. This would assist cyclists accessing the shop facilities.
3. The previous application for the PFS – 20160215 – included a new dedicated left slip lane on the roundabout at the access to the site. This is not mentioned in the proposal details in the Scoping Note. I would expect the traffic generation for the PFS / EV Charging Station / retail to be at least equal, if not greater, than this previous application. It also provided an improved and safer route for pedestrians circulating the roundabout. Has this requirement been considered?

4. Whilst the parking provision appears adequate, have you any evidence from the other EV charging stations that this is sufficient? Kent Parking Standards (SPG4) do not include such facilities as they are too modern but the KPS should at least be referred to in the list of relevant policies.
5. A minor error, but in paragraph 3.3.6 it should refer to westbound, not eastbound slips, off / on A2.
6. An up-to-date 5 year crash record obtained from Kent County Council Highways (rather than Crashmap) should be included in the TA.
7. An indication of proposed staff numbers should be provided and to tie in with sustainable transport facilities available locally. I assume that staff numbers will be low therefore a Travel Plan is unlikely to be necessary.
8. The trip generation and distribution methodology is acceptable.
9. Looking at the trip generation data provided for the EV charging stations it would appear that the peak times are not necessarily the usual peaks and can occur earlier in the day. This needs to be taken into account when added to the PFS trips to establish the maximum peak.
10. The baseline traffic surveys are agreed for the three roundabouts on Wrotham Road although the PM peak time may need to be expended earlier given the comments in 9 above.
11. Only the 30% proportion of the Bovis / Persimmon development needs to be added as a committed development. The two schools listed are unlikely to have any significant impact and can be ignored. Gravesham BC planning should be consulted regarding any other significant committed developments.
12. The proposed junction capacity assessments are acceptable.

13. Due to the close proximity of the A2 which comes under the jurisdiction of National Highways I would recommend that you consult them on your Scoping Note and they may have additional comments that I have not covered.

I hope that the above is of assistance to you and if you have any queries on the above, or any other elements on the proposal, please contact me.

Informative: It is important to note that planning permission does not convey any approval to carry out works on or affecting the public highway.

Any changes to or affecting the public highway in Kent require the formal agreement of the Highway Authority, Kent County Council (KCC), and it should not be assumed that this will be a given because planning permission has been granted. For this reason, anyone considering works which may affect the public highway, including any highway-owned street furniture, is advised to engage with KCC Highways and Transportation at an early stage in the design process.

Across the county there are pieces of land next to private homes and gardens that do not look like roads or pavements but are actually part of the public highway. Some of this highway land is owned by Kent County Council whilst some is owned by third party owners. Irrespective of the ownership, this land may have highway rights over the topsoil.

Works on private land may also affect the public highway. These include works to cellars, to retaining walls which support the highway or land above the highway, and to balconies, signs or other structures which project over the highway. Such works also require the approval of the Highway Authority.

Kent County Council has now introduced a formal technical approval process for new or altered highway assets, with the aim of improving future maintainability. This process applies to all development works affecting the public highway other than applications for vehicle crossings, which are covered by a separate approval process.

Should the development be approved by the Planning Authority, it is the responsibility of the applicant to ensure, before the development is commenced, that all necessary highway approvals and consents have been obtained and that the limits of the highway boundary have been clearly established, since failure to do so may result in enforcement action being taken by the Highway Authority. The applicant must also ensure that the details shown on the approved plans agree in every aspect with those approved under the relevant legislation and common law. It is therefore important for the applicant to contact KCC Highways and Transportation to progress this aspect of the works prior to commencement on site.

Guidance for applicants, including information about how to clarify the highway boundary and links to application forms for vehicular crossings and other highway matters, may be found on Kent County Council's website:

<https://www.kent.gov.uk/roads-and-travel/highway-permits-and-licences/highways-permissions-and-technical-guidance>. Alternatively, KCC Highways and Transportation may be contacted by telephone: 03000 418181

Yours Faithfully

Director of Highways & Transportation

*This is a statutory technical response on behalf of KCC as Highway Authority. If you wish to make representations in relation to highways matters associated with the planning application under consideration, please make these directly to the Planning Authority.

Hannah Atkins

From: Hannah Atkins
Sent: 03 May 2024 10:11
To: Hannah Atkins
Subject: FW: RE: PAP/2022/134 at Former Tollgate Hotel, Watling Street, Gravesend - Response to Comments Raised

From: David Barton
Sent: Friday, January 13, 2023 10:40 AM
To: Hannah Atkins
Cc: Angela Coull
Subject: RE: PAP/2022/134 at Former Tollgate Hotel, Watling Street, Gravesend - Response to Comments Raised [Filed 07 Feb 2023 17:04]

Hi Hannah

Thank you for your email with your response comments on our previous points raised in the pre-app enquiry.

I find your responses acceptable, and my only comment would be regarding Item 9. If you are carrying out traffic surveys at the agreed junctions, can I suggest that this should include the period from 12:00 – 13:00 which is shown to be the peak for movements associated with the proposed development. This would then show whether this is higher than the “normal” AM and PM peaks.

If you require any further assistance, then please contact me.

Kind Regards
Dave

David Barton
Senior Development Planner
Kent County Council Highways & Transportation

From: Hannah Atkins
Sent: 06 January 2023 14:39
To: David Barton - GT TRA
Cc: Angela Coull - GT TRA; Jenny Baker
Subject: PAP/2022/134 at Former Tollgate Hotel, Watling Street, Gravesend - Response to Comments Raised

Some people who received this message don't often get email from hannah@markidesassociates.co.uk. [Learn why this is important](#)

I hope you had a lovely Christmas and new year.

Thank you again for your comments on the proposals at Tollgate. Further to this, please find our response to each of the points raised in red below:-

1. Whilst I agree that the PFS is unlikely to generate any new trips since there is already another PFS in the vicinity, I note that you propose no new trips to the EV charging station since the locals would tend to use slower on-street or residential chargers. I am not convinced that a proportion of residents would not use the fast-charging facilities offered and an allowance should be included for those users. I am not sure if any data is available in other EV charging station locations for these users, but it should be investigated. **On assessment of the available literature, there does not appear to be anything that specifically covers the**

proportion of new / pass by trips that would be associated with an EV charging station. Therefore, for the purposes of this assessment, it is proposed that 20% of movements associated with the EV charging facility are due to resident's charging needs.

2. The E/W track that runs along the northern side of the site is a cycle route so it should be at least 3.0m wide to form a shared footpath / cycleway. This would assist cyclists accessing the shop facilities. **The layout will be reviewed, and we will seek to incorporate this as part of the final iteration.**
3. The previous application for the PFS – 20160215 – included a new dedicated left slip lane on the roundabout at the access to the site. This is not mentioned in the proposal details in the Scoping Note. I would expect the traffic generation for the PFS / EV Charging Station / retail to be at least equal, if not greater, than this previous application. It also provided an improved and safer route for pedestrians circulating the roundabout. Has this requirement been considered? **Due consideration of wider highways improvements will be undertaken as part of the TA. Once modelling has been completed for this junction, improvements will be considered as required and submitted as part of the application. It is noted that the peak period trip generation of the proposed development is less than was proposed as part of the previous applications. The planning application referenced within the comments sought to development an 18-pump PFS with an AM and PM peak trip generation of 347 and 383 trips, respectively. The original planning application (Reference: 20131018) also included for a fast food outlet, which added a further 90 and 145 trips in the AM and PM peak, respectively. Therefore, the proposed trip generation of the PFS and EV charging facility (217 and 233 trips in the AM and PM peak) falls below this number and the need for highway capacity mitigation measures will be considered in this context in the TA.**
4. Whist the parking provision appears adequate, have you any evidence from the other EV charging stations that this is sufficient? Kent Parking Standards (SPG4) do not include such facilities as they are too modern but the KPS should at least be referred to in the list of relevant policies. **The two surveyed EV charging facilities (Braintree and Norwich) had the following breakdown of parking:**

Parking Type	Norwich	Braintree
Standard Spaces	11	22
EV Charging Spaces	33	38
Disabled Spaces	1	2
EV Disabled Bays	3	2

A total of 33 standard parking spaces are proposed to accompany the EV charging facility and PFS, which is greater than the parking provided at the above sites, though it is appreciated that neither site benefits from a PFS. It is, therefore, considered that the level of standard parking is robust given the scale of the other facilities assessed. The KPS will be referenced within the TA and the onsite parking provision justified accordingly, using information available from the assessed sites.

5. A minor error, but in paragraph 3.3.6 it should refer to westbound, not eastbound slips, off / on A2. **Noted.**
6. An up-to-date 5 year crash record obtained from Kent County Council Highways (rather than Crashmap) should be included in the TA. **Incident data will be sourced from KCC for the latest 5-year period.**
7. An indication of proposed staff numbers should be provided and to tie in with sustainable transport facilities available locally. I assume that staff numbers will be low therefore a Travel Plan is unlikely to be necessary. **Discussions have been undertaken with the applicant who has confirmed that between 30 and 35 staff are anticipated to be employed at the site. They have confirmed that this would be in the region of 23 Full Time Equivalent (FTE) positions. At any given time, between 8 and 10 staff members will be on site. Staff will comprise of those manning the tills, café staff, those replenishing stock, a manager and cleaners. In light of the limited number of staff on the site at any given time, it is not considered that a Travel Plan will be necessary, though confirmation of this is sought.**
8. The trip generation and distribution methodology is acceptable. **Noted.**
9. Looking at the trip generation data provided for the EV charging stations it would appear that the peak times are not necessarily the usual peaks and can occur earlier in the day. This needs to be taken into account when added to the PFS trips to establish the maximum peak. **Please find attached a trip generation assessment for both the EV charging facility and PFS, showing an hour-by-hour breakdown. The combined trip generation of the two facilities is also shown for ease. The attached demonstrates that the combined peak period for the two onsite uses is between 12:00 and 13:00 equating to 251 trips. When assessing the standard network peaks (08:00-09:00 and 17:00-18:00), it is not considered that the trip generation is significantly less than the overall peak of the site uses, equating to 216 and 233 trips in the AM and PM**

peaks, respectively. It is, therefore, considered appropriate to utilise these periods for capacity assessment. We welcome any further comments with respect to this methodology.

10. The baseline traffic surveys are agreed for the three roundabouts on Wrotham Road although the PM peak time may need to be expended earlier given the comments in 9 above. **Noted, however, in light of the above it is not anticipated that the PM peak need be expanded as the two hours on either side of the 17:00-18:00 period have lower trip generation. It would be helpful if we can confirm that it is acceptable for surveys to take place in January – outside of school holidays and avoiding rail strike days and any periods of particularly adverse weather.**
11. Only the 30% proportion of the Bovis / Persimmon development needs to be added as a committed development. The two schools listed are unlikely to have any significant impact and can be ignored. Gravesham BC planning should be consulted regarding any other significant committed developments. **Pre-application discussions are being held with GBC and we are currently seeking confirmation from them regarding any further committed developments. When we have received confirmation from GBC, we will confirm the final committed developments with yourself.**
12. The proposed junction capacity assessments are acceptable. **Noted.**
13. Due to the close proximity of the A2 which comes under the jurisdiction of National Highways I would recommend that you consult them on your Scoping Note and they may have additional comments that I have not covered. **Pre-application discussions will be undertaken with NH in light of the proximity of the site to the A2. Any comments raised by NH will be addressed as part of the TA submission.**

I trust that the above is clear – we would welcome any further comments that you have with respect to our additional commentary. If it is easier, we would also be happy to arrange a meeting to run through anything further in more detail.

Kind regards,

Hannah Atkins

Associate Transport Planner



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Tech Note

Spatial Planning Framework Commission

Job number:	K341		
Job title:	Former Tollgate Hotel Gravesend		
To:	Kevin Bown	cc:	Marius Pieters
Topic:	Former Tollgate Hotel Gravesend – Transport Assessment Review		
	Prepared:	Checked	Approved
Name:	Alan Philp / Luz Vioque	Jamshid Soheili	Jamshid Soheili
Date:	29/01/2023	30/01/2023	30/01/2023

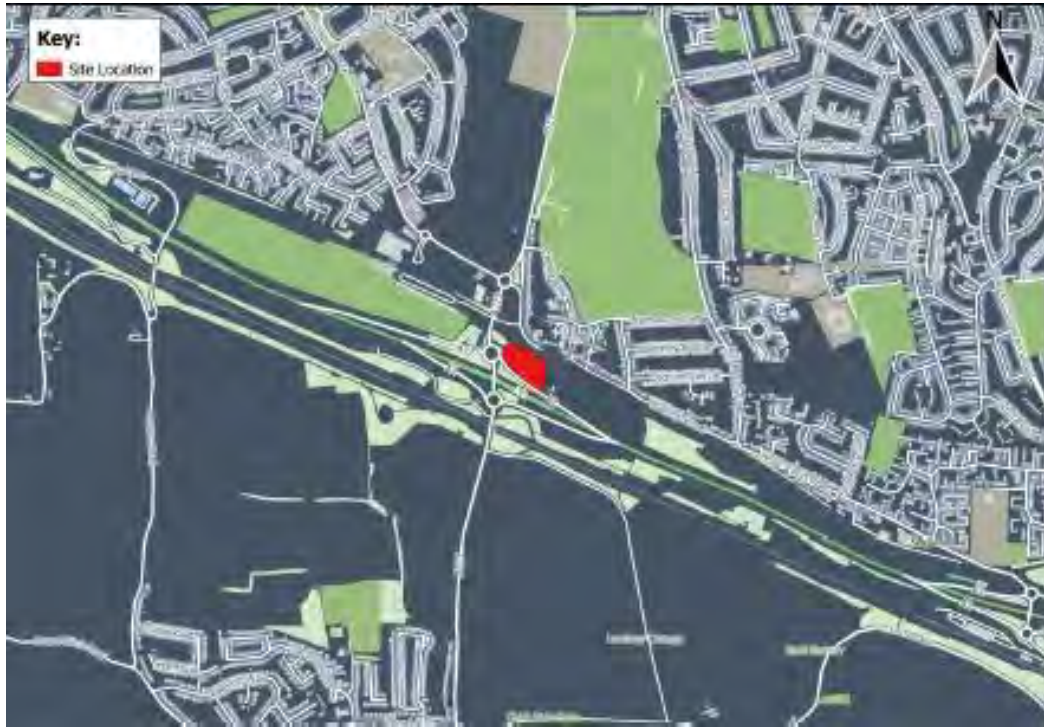
Introduction

- 1 National Highways has been consulted on pre-application PRE20220162 for *‘Demolition of all existing buildings on the Site, in favour of an EV Hub (albeit with an initial petrol offer), provision of 24 Electric Vehicle Charging points, erection of a single storey building that is likely to be used as a forecourt shop and café area (similar to a petrol filling station) with wraparound canopy, erection of six petrol/diesel fuel pump islands in a domino six layout, with a canopy above and fuel storage tanks below to the rear of the amenity building, provision of three jet wash bays, a car wash and two air/water bay, provision of customer parking to the front on the retail building, construction of vehicle access and circulation areas, with access to the site via the existing (albeit improved) crossover, provision of supporting infrastructure such as a sub-station and plant room and perimeter landscaped areas, including new trees, to provide a soft interface between the development proposal and its wider context’ at the former Tollgate Hotel, Watling Street.*
- 2 The local planning authority (LPA) is Gravesham Borough Council (GBC) and the local highway authority is Kent County Council (KCC).

| Site Location

- 3 As shown in the plan below, the proposed development site is located adjacent to the strategic road network (SRN), to the north-east of the A2/A227 Wrotham Road interchange and directly adjacent to the eastbound on-slip. There is an existing vehicular access to the site taken directly from the A2/A227 North Roundabout.

Figure 1: Site Location Plan



Source: Transport Assessment Scoping Note (Markides, October 2022)

Planning History

- 4 The site has a lengthy planning history, with the following of note:
 - Planning application (reference number 20131018) for a petrol filling station and a drive thru, originally submitted in November 2013, granted planning permission twice, but twice quashed and finally withdrawn in November 2017.
 - Planning application (reference number 20160215) for a petrol filling station only, originally submitted in March 2016, granted in February 2018 but subsequently quashed, and then subject to an appeal against non-determination in March 2019 (with the appeal being withdrawn in January 2020). Highways England recommended that conditions be attached to any permission which may be granted, relating to implementation of improvements to the A2 (westbound) off-slip and also preparation of a Construction Traffic Management Plan.
- 5 National Highways was consulted on this pre-application in May 2022 and provided comments in June 2022 including the following:
 - A Transport Assessment required to be prepared and submitted in accordance with DfT Circular 02/2013, as a first step a scoping note should be prepared for review
 - A Construction Management Plan will be required to support the application
 - Site boundary to be clarified, together with boundary treatment issues
 - Signage, lighting and drainage proposals to be advised on
 - There is a need to consider the impact of the development on the SRN as a retaining structure is proposed within the site, in close proximity to the boundary with the SRN
- 6 National Highways has been further consulted on the pre-application during January 2023 and has been provided with a Transport Assessment Scoping Note (Markides Associates, October 2022)

together with correspondence with KCC. Our comments on the Transport Assessment Scoping Note (TASN) and accompanying correspondence is provided below.

Transport Assessment Scoping Note Review

Policy Context

- 7 The TASN contains reference a number of policy documents. **There is a need for reference and adherence to be made to the following key documents:**
 - **Department for Transport Circular 01/2022 – Strategic road network and the delivery of sustainable development**
 - **National Highways guidance document ‘Planning and the strategic road network in England’**
 - **DfT document ‘Road Investment Strategy 2: 2020-2025’**
 - **Design Manual for Roads and Bridges (DMRB)**
- 8 We confirm that for this project DfT Circular 01/2022 is applicable.

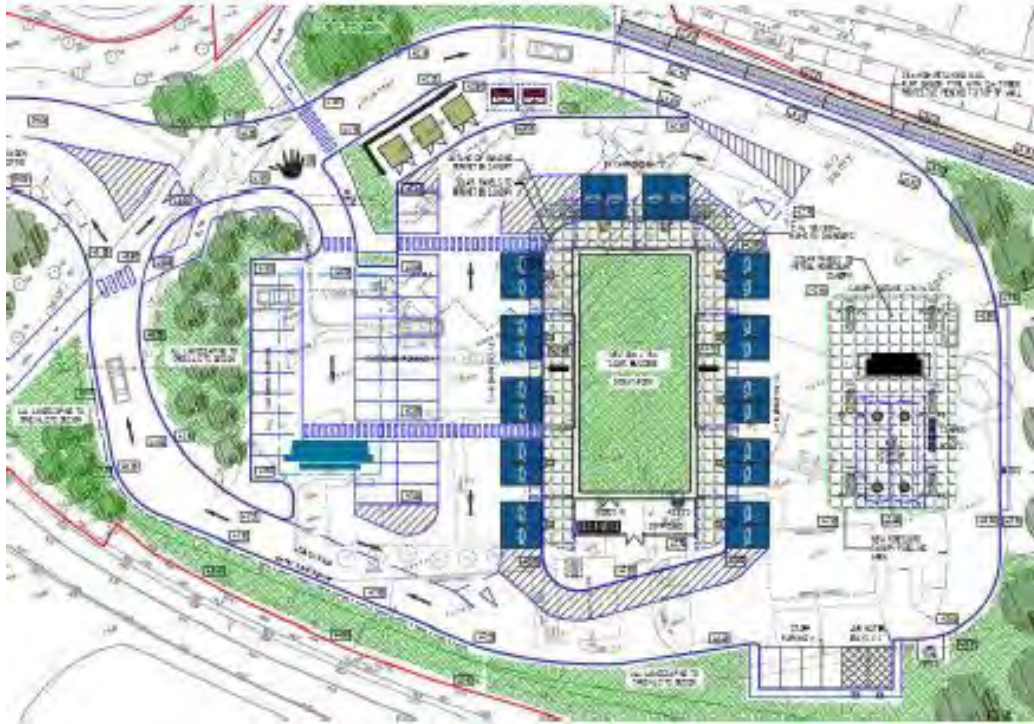
Collision Analysis

- 9 There is a need for the collision analysis to include the A2/A227 interchange, including slip roads. **A detailed STATS 19 collision analysis is required to be carried out for the latest 5-year period for which collision data is available. Due to the decrease in vehicle movements during the COVID-19 pandemic, the collision data will need to cover five years pre-pandemic, as well as the pandemic period.**

Development Proposal

- 10 The development proposal comprises demolition of the existing buildings and construction of an EV ChargePoint Service Area (with 24 ChargePoints, 12 of which will be 300kW ultra-rapid chargers) together with a traditional petrol filling station (PFS) forecourt (with 12 pumps) for Light Goods Vehicles (LGV) and private motor vehicles. The proposed layout of the development is shown below.

Figure 2: Proposed Site Layout



Source: Transport Assessment Scoping Note (Markides, October 2022)

Trip Rates and Generation

- 11 The TASN considers the trip rates associated with the vacant 59 bedroom hotel which currently occupies the site. The TRICS database (version 7.9.3) has been used to assess trip rates for the hotel and this is included within Appendix C of the TASN. JSJV has reviewed the hotel trip rates and these are concluded to be acceptable.
- 12 The trip rates associated with the EV ChargePoints has been based on surveys at existing facilities near Braintree, Essex and Norwich, Norfolk. The facilities are each EV only facilities with associated retail operated by Gridserve and are concluded to be suitable locations on which to base trip rates. We have no concerns with the provided trip rate information.
- 13 The TRICS database (version 7.9.3) has been used to assess trip rates for the PFS and this is included within Appendix C of the TASN. JSJV has reviewed the PFS trip rates and these are concluded to be acceptable.
- 14 The total trip generation for the EV ChargePoints and the PFS results in 217 two-way trips during the AM peak and 233 two-way trips during the PM peak as shown below.

Figure 3: Total Trip Generation – EV ChargePoints and PFS

Time Period	Proposed EV ChargePoints		
	Arrival	Departure	Total
Weekday AM Peak (08:00-09:00)	112	105	217
Weekday PM Peak (17:00-18:00)	117	116	233

Source: Transport Assessment Scoping Note (Markides, October 2022)

Trip Distribution/Assignment

- 15 The distribution is proposed to be based on existing turning proportions on the road network and this is confirmed by JSJV to be acceptable.

Committed Development and Background Traffic Growth

- 16 The TASN provides details of three developments proposed to be reflected within the assessment.
- 17 **We advise that the applicant contact the LPA for an up-to-date list of committed developments (i.e. developments with planning consent) that may also have an impact on the local network and the SRN. This information will need to be included in any junction capacity analysis required. This updated list should then be submitted to National Highways for review and approval.**
- 18 The TASN highlights that background growth will be estimated using TEMPro and that if necessary assumptions will be amended to avoid double counting. **The applicant needs to consider the requirements of DfT Circular 01/2022 with regards to the use of TEMPro (see subsequent action point for more detail).**

Assessment Scenarios

- 19 The TASN notes that assessment is planned to be undertaken at 2022 base, and at 2027 with and without development.
- 20 **We would highlight that the proposed assessment scenarios should align with DfT Circular 01/2022, for reference we highlight key paragraphs below:**

48. Where a transport assessment is required, this should start with a vision of what the development is seeking to achieve and then test a set of scenarios to determine the optimum design and transport infrastructure to realise this vision. Where such development has not been identified in an up-to-date development plan (or an emerging plan that is at an advanced stage^[footnote 19]), developers should demonstrate that the development would be located in an area of high accessibility by sustainable transport modes^[footnote 20] and would not create a significant constraint to the delivery of any planned improvements to the transport network or allocated sites.

49. A transport assessment for consideration by the company must also consider existing and forecast levels of traffic on the SRN, alongside any additional trips from committed developments^[footnote 21] that would impact on the same sections (link or junction) as the proposed development. Assumptions underpinning projected levels of traffic should be clearly stated to avoid the default factoring up of baseline traffic. The scenario(s) to be assessed, which depending on the development and local circumstances may include sensitivity testing, should be agreed with the company; where a scenario with particularly high or low growth is proposed, this should be supported by appropriate evidence. Planned improvements to the SRN or local road network should also be considered in any assessment where there is a high degree of certainty that this will be delivered^[footnote 22].

50. An opening year assessment to include trips generated by the proposed development, forecasted growth and committed development shall be carried out to establish the residual transport impacts of a proposed development. For multi-phase developments, additional assessments shall be provided based on the opening of each phase.

Whilst the above extracts are provided initial guidance, the applicant is advised to refer to the Circular in its entirety at [Strategic road network and the delivery of sustainable development](https://www.gov.uk/government/publications/strategic-road-network-and-the-delivery-of-sustainable-development) - GOV.UK (www.gov.uk)

Network Modelling

- 21 The TASN highlights that traffic surveys will be undertaken at the following locations:
- Coldharbour Road/A227 Wrotham Road roundabout
 - A227 Wrotham Road/A2 eastbound slips roundabout
 - A227 Wrotham Road/A2 westbound slips roundabout
- 22 **In addition to the above identified locations, there is a need for a merge/diverge assessment to be undertaken to assess the implications of additional traffic turning off and onto the A2. This should be undertaken in accordance with DMRB CD 122 and we would request that:**
- **Traffic flow diagrams are provided covering the 4 merge/diverge locations**
 - **Data sources for mainline traffic flows are clearly documented**
 - **Any factors applied to traffic flows should be clearly documented, such as factoring related to gradient and/or percentage of HGVs**
 - **The merge/diverge assessment results should preferably be plotted onto the CD 122 charts, using a suitable legend, clearly showing which layout type is required for each traffic flow scenario**

Boundary Issues

- 23 The boundary of the strategic road network (SRN) adjacent to site is shown on the plan below, extracted from National Highways Highway Maps ARCGIS. The site boundary is shown in green showing that the development site directly abuts the SRN.

Figure 4: Boundary Issues



Source: Highway boundary <https://highways.maps.arcgis.com>

- 24 Drawing no 113979-22 rev B 'Proposed site layout' appears to indicate that a landscape bund is proposed between the SRN boundary and the internal road.
- 25 Inspection of google maps indicates that the site is currently fenced as shown below however, no references to existing or proposed fencing can be found in the drawing.

Figure 6: Existing fencing



Source: Google maps

- 26 Therefore, we would seek to be provided with further details of the boundary treatment fronting the SRN for consideration. **Applicant to provide National Highways with:**
- Provision of fencing/barrier along the site perimeter; this needs to be a form of fencing/barrier that would prevent children/pets from straying onto the SRN. Also, its construction/use/maintenance must be able to take place without any need for staff/plant/materials to enter National Highways land
 - Any details of acoustic or other bunds, if proposed. Any changes of levels could impact on site drainage etc and hence could impact on the SRN. No planting should result in a need for staff/plant/materials to enter our land, nor should it lead to maintenance liabilities for us e.g. need to cut back vegetation in order to maintain sightlines to SRN signage, or access to our own assets, or otherwise keep open any land that needs to be for any reason
 - Proposed site elevation drawings; this will help to evaluate possible impacts the development may cause onto the SRN.

| Site Appraisal

- 27 The red line boundary shown on the submitted Block Plan ref 13979/OS, appears to encompass an area which forms part of the SRN. **Applicant to establish limits of public highway, both strategic road network and local road network. Limits should be identified on future layout drawings.**

| Site access

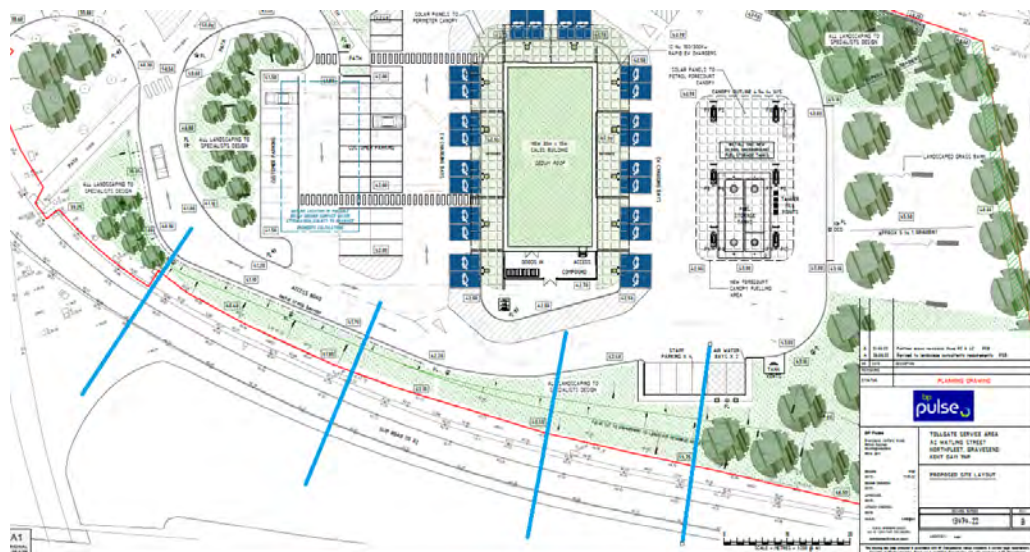
- 28 The existing access off the roundabout is a single entry/exit lane with a small splitter island on which there is a pedestrian facility, a lamp column, and a collapsible bollard.
- 29 Previous planning applications submitted for the redevelopment on this site in 2013 and 2016 included improvements to the site access onto the A227 roundabout and to the A2 eastbound on slip.
- 30 However, no details have been provided of the site access and/or junction mitigation measures that will accommodate the future traffic flows associated with the site. Therefore, **applicant to demonstrate suitable junction and site access arrangements/improvements to accommodate forecast traffic flows.**

Signage

- 31 No details of signage have been provided within the information provided. The very nature of the proposed development could lead to the applicant seeking to provide advanced signage on the SRN.
- 32 **Applicant to clarify if signage is proposed as part of the development proposals. If so, Applicant to provide information on proposed signage directing users to and from the site. DfT Circular 02/2013 ANNEX B provides information as to the minimum requirements for the various types of roadside facility that may be eligible for signing from the strategic road network.**

SRN Stability

- 33 The proposed site layout as shown in drawing 13979-22 rev B has removed the retaining wall structure that was proposed in drawing 13979-22 provided in May 2022. It can be appreciated that the internal road has been moved to the north. A landscaping area is now proposed between the site boundary that abuts the SRN and the internal road. This zone seems to be landscaped forming a bund.
- 34 The bund height is not defined in drawing 13979-22 rev B therefore, to better understand the impact of the landscape proposals may have on the A2 slip road, we would seek to be provided with further level information. **Applicant to provide cross sections of locations suggested in bellow figure.**



Lighting

- 35 The nature of the proposed development will require a high level of lighting within the site whether it will be a 24hour operation or not. Given the closeness of the site to the SRN, the direction of travel for vehicles using the SRN and its elevated position juxta the site, uncontrolled lighting on site could result in a distraction to users of the SRN and generate a safety risk.
- 36 **Applicant to provide a level of lighting within the site and to position lighting units such that they cause no detriment to users of the SRN. The applicant should provide such information in the form of a lighting framework which should outline that lighting arrangements will be maintained causing no risk to users of the SRN. To ensure that this is continually reviewed to maintain safety, the applicant should review the lighting framework every 5 years in conjunction with National Highways.**

| Drainage

- 37 Whilst details of the drainage strategy have not been provided, the **applicant shall ensure that any surface water runoff from the site is intercepted before reaching the highway boundary and disposed of within the limits of the site. No new connections are permitted to highways drainage as indicated in paragraph 59 of DfT Circular 01/2021 Strategy Road networks and the delivery of sustainable development.**

| Construction Environmental Management Plan

- 38 **A Construction Environmental Management Plan (CEMP) or equivalent document will need to be produced for the proposed development, and for this document to be approved prior to commencement of any construction activities on-site.** It is expected that a draft CEMP will be submitted as part of an application documents package. Should this not be the case, a suitable condition will need to be attached to any planning consent which may be granted.

Conclusion

- 39 As detailed above, a number of issues have been identified which will require further consideration and additional information to be submitted for review, either as part of a further pre-application consultation, or within the documentation to accompany the proposed forthcoming planning application.

Hannah Atkins

From: Hannah Atkins
Sent: 03 May 2024 10:14
To: Hannah Atkins
Subject: FW: NH response: 7796, #18995. Pre-Application Advice - Former Tollgate Hotel, Watling Street, Gravesend

From: Marius Pieters
Sent: Thursday, February 23, 2023 10:04 AM
To: Hannah Atkins
Cc: Kevin Bown; Planning SE; SouthEast_HESPA; Spatial Planning; transportplanning@dft.gov.uk
Subject: RE: NH response: 7796, #18995. Pre-Application Advice - Former Tollgate Hotel, Watling Street, Gravesend [Filed 27 Feb 2023 10:58]

Good morning, Hannah.

Thank you for contacting National Highways, and I do apologies for a delayed response. I have included our comments in red below your questions for ease of reference..

Merge and Diverge Assessment

The request for the completion of a merge / diverge assessment in accordance with CD 122 is noted and will be included within the TA. In terms of the flows for this assessment, we have review the WebTris database to understand the information available for this junction. For the mainline, count points A2/8374B (westbound) and A2/8375A (eastbound) have been used. It is proposed to use an average flow for the period of March 2022 for the mainline carriageway, March being a neutral month as identified by TAG guidance M1.2. The average has been derived using weekday AM and PM peak data (08:00-09:00 and 17:00-18:00) for Tuesday, Wednesday and Thursday periods, where it is considered that flows will be less impacted by flexible working patterns. The resulting mainline flows are included within the attached spreadsheets under the summary tab. It is not proposed to apply any growth factors to the mainline flows for the assessment.

We have reviewed the provided WebTris data and we note that March 2022 is the lowest (based on westbound, 12 hour data) of the neutral months in 2022 and we therefore request that October 2022 data is used. The methodology of averaging the Tuesday to Thursday data for the AM and PM peak hours is acceptable. In addition, for the opening year and 2028 assessments please include the identified committed development and TEMPro growth factors.

With respect to the slip roads, it is noted that three of the four slips have data for March 2022, however, the eastbound off slip has not recorded flows since 2015. Therefore, it is proposed that the slip lane information is derived from the manual classified count (MCC) data to be collected at these junctions in support of the TA. These surveys will be completed in the coming weeks, avoiding the half term period and any planned strike days.

We confirm that it is acceptable to use the MCC data for the calculation of the slip road traffic flows, with the opening year and 2028 assessments including the identified committed development and TEMPro growth factors.

Scenarios

The guidance of the 01/2022 Circular is acknowledged with respect to scenario testing. In light of the nature of proposed development, the passing of time between the collection of survey data and the issuing of the scoping note and the information within 01/2022, we propose the following scenarios:-

- 2023 Baseline;

- Opening year assessment (both with and without development)
- +5 year horizon (2028) (both with and without development)

It is proposed to consider the above as 'core' scenarios, with the impacts of background growth and committed developments included as part of the with and without development scenarios. It is not proposed to consider any further scenarios. Given the nature of the development, which as an EV charging facility and PFS will cater for the needs of car drivers, it is not considered that any reduction in trip generation is justified as might be reasonable for other development types, for example. Therefore, we consider the assessment of the core scenario only to be acceptable in this instance. Moreover, KCC H&T consider the above approach to be suitable.

We have reviewed the proposed assessment scenarios and the justification provided and confirm that the above is acceptable. We note that the development proposals are not allocated within the Local Plan and that the adopted Local Plan covers the period up to 2028.

With respect to TEMPRO, it was understood that there was to be an update planned for November of last year for V8.0 which would include the updated RTFs. However, looking online, this does not appear to have been realised yet. Until such time as this is available, it is assumed that V7.2c would still be the most suitable in terms of assessment. If, however, the planned updates to V8.0 are realised prior to the assessments being conducted, then this would be revised accordingly. We will share the proposed TEMPRO rates in due course once the relevant committed developments have been reviewed.

We confirm that it is acceptable to use TEMPro v7.2c as documented above. We look forward to seeing the TEMPro growth factors.

Committed Developments

As part of the planning pre-application discussions, GBC has been contacted. They have advised that, in addition to Planning Application Reference: 20141214 (as outlined in the scoping note), the following should also be considered:-

- Lower Thames Crossing – the application for a Development Consent Order has been submitted
- Ebbsfleet Central – EDC/22/0168
- Northfleet Harbourside – 20221064
- Albion Waterside – 20210270

For the latter three developments, we will seek to source their relevant TAs from the planning portal to understand and add their impacts to the network under consideration.

This is acceptable in principle. Please include within the TA the correspondence from GBC confirming the committed development requirements.

With respect to the Lower Thames Crossing, given the proposed horizon period for assessment (2028) the impacts of the crossing will not yet be in place (based on an anticipated opening of 2029/2030). Therefore, it is not proposed to be included as part of the assessment methodology. Qualitative discussion surrounding the longer-term impacts of the Crossing can be provided as part of the TA to acknowledge its proximity to the proposed development site, however, no consideration of it within the capacity assessments is considered to be necessary.

We confirm this approach is acceptable considering the proposed assessment years.

Please feel free to If you or others have any questions regarding our response, please contact us at planningse@nationalhighways.co.uk.

Best Regards

Marius Pieters

From: Hannah Atkins

Sent: 03 February 2023 16:45

To: Marius Pieters

Cc: Jenny Baker; Kevin Bown; Planning SE; SouthEast_HESPA; Spatial Planning; transportplanning@dft.gov.uk

Subject: RE: NH response: 7796, #18995. Pre-Application Advice - Former Tollgate Hotel, Watling Street, Gravesend

Good afternoon Marius,

Further to NH's pre-application response on the proposals at the former Tollgate Hotel, we have reviewed several of the points raised and would like to offer the following additional commentary:-

Merge and Diverge Assessment

The request for the completion of a merge / diverge assessment in accordance with CD 122 is noted and will be included within the TA. In terms of the flows for this assessment, we have reviewed the WebTris database to understand the information available for this junction. For the mainline, count points A2/8374B (westbound) and A2/8375A (eastbound) have been used. It is proposed to use an average flow for the period of March 2022 for the mainline carriageway, March being a neutral month as identified by TAG guidance M1.2. The average has been derived using weekday AM and PM peak data (08:00-09:00 and 17:00-18:00) for Tuesday, Wednesday and Thursday periods, where it is considered that flows will be less impacted by flexible working patterns. The resulting mainline flows are included within the attached spreadsheets under the summary tab. It is not proposed to apply any growth factors to the mainline flows for the assessment.

With respect to the slip roads, it is noted that three of the four slips have data for March 2022, however, the eastbound off slip has not recorded flows since 2015. Therefore, it is proposed that the slip lane information is derived from the manual classified count (MCC) data to be collected at these junctions in support of the TA. These surveys will be completed in the coming weeks, avoiding the half term period and any planned strike days.

Scenarios

The guidance of the 01/2022 Circular is acknowledged with respect to scenario testing. In light of the nature of proposed development, the passing of time between the collection of survey data and the issuing of the scoping note and the information within 01/2022, we propose the following scenarios:-

- 2023 Baseline;
- Opening year assessment (both with and without development)
- +5 year horizon (2028) (both with and without development)

It is proposed to consider the above as 'core' scenarios, with the impacts of background growth and committed developments included as part of the with and without development scenarios. It is not proposed to consider any further scenarios. Given the nature of the development, which as an EV charging facility and PFS will cater for the needs of car drivers, it is not considered that any reduction in trip generation is justified as might be reasonable for other development types, for example. Therefore, we consider the assessment of the core scenario only to be acceptable in this instance. Moreover, KCC H&T consider the above approach to be suitable.

With respect to TEMPRO, it was understood that there was to be an update planned for November of last year for V8.0 which would include the updated RTFs. However, looking online, this does not appear to have been realised yet. Until such time as this is available, it is assumed that V7.2c would still be the most suitable in terms of assessment. If, however, the planned updates to V8.0 are realised prior to the assessments being conducted, then

this would be revised accordingly. We will share the proposed TEMPRO rates in due course once the relevant committed developments have been reviewed.

Committed Developments

As part of the planning pre-application discussions, GBC has been contacted. They have advised that, in addition to Planning Application Reference: 20141214 (as outlined in the scoping note), the following should also be considered:-

- Lower Thames Crossing – the application for a Development Consent Order has been submitted
- Ebbsfleet Central – EDC/22/0168
- Northfleet Harbourside – 20221064
- Albion Waterside – 20210270

For the latter three developments, we will seek to source their relevant TAs from the planning portal to understand and add their impacts to the network under consideration.

With respect to the Lower Thames Crossing, given the proposed horizon period for assessment (2028) the impacts of the crossing will not yet be in place (based on an anticipated opening of 2029/2030). Therefore, it is not proposed to be included as part of the assessment methodology. Qualitative discussion surrounding the longer-term impacts of the Crossing can be provided as part of the TA to acknowledge its proximity to the proposed development site, however, no consideration of it within the capacity assessments is considered to be necessary.

I trust the above and attached are clear – we would welcome any further comments you have on these elements to allow us to continue progressing with the TA.

Thank you

Kind regards,

Hannah Atkins

Associate Transport Planner



Markides Associates Ltd.
81 Southwark Bridge Road, London, SE1 0NQ

Tel: 020 7442 2225

Registered in England and Wales No. 10394301

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From: Marius Pieters
Sent: 30 January 2023 17:44

To: Hannah Atkins

Cc: Jenny Baker ; Kevin Bown ; Planning SE; SouthEast_HESPA; Spatial Planning; transportplanning@dft.gov.uk

Subject: NH response: 7796, #18995. Pre-Application Advice - Former Tollgate Hotel, Watling Street, Gravesend
[Filed 31 Jan 2023 12:17]

For attention of: Hannah Atkins. Associate Transport Planner.
Markides Associates Ltd

Your Reference: Pre-Application Advice - Former Tollgate Hotel, Watling Street,
Gravesend

Our Reference: HAMIS: 7796, Tracker: #18995

Dear Ms Atkins.

Thank you for your correspondence dated 13 January 2023 consulting National Highways with regards to per-application advice – Former Tollgate Hotel, Watling Street, Gravesend.

National Highways has been appointed by the Secretary of State for Transport as 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 National Highways works 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.

The proposed development site is located adjacent to the strategic road network (SRN), to the north-east of the A2/A227 Wrotham Road interchange and directly adjacent to the eastbound on-slip. There is an existing vehicular access to the site taken directly from the A2/A227 North Roundabout.

The site has a lengthy planning history and a number of issues have been identified which will require further consideration and additional information to be submitted for review, either as part of a further pre-application consultation, or within the documentation to accompany the proposed forthcoming planning application. For ease of reference, I attach a **technical note** that has been assessed by Jacobs Systra on behalf of the National Highways South East Region Spatial Planning Team.

We look forward to further engagement with the proposals and being consulted on any application submitted.

In the meantime, if you have any queries, please do not hesitate to contact us at planningse@nationalhighways.co.uk.

Best Regards

Marius Pieters

Spatial Planning Team, South East Region, Operations Directorate

National Highways | Bridge House | 1 Walnut Tree Close | Guildford | Surrey | GU1 4LZ

Web: <http://www.highways.gov.uk>

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Advice Note 04



Spatial Planning Framework Commission

Job number:	K341		
Job title:	Former Tollgate Hotel Gravesend		
LPA name:	Gravesham Borough Council	LPA Ref:	PRE20240151
To:	Nigel De Wit	cc:	
Topic:	Review of Appendices relating to Pre-Application Transport Assessment		
	Prepared:	Checked/Approved	
Name:	Kelly Chiu	Derek Jones	
Date:	05/07/2024	11/07/2024	

Throughout this response any **ACTION POINTS** for the applicant are shown as **bold underlined**.

Introduction

- 1 National Highways has been consulted by Gravesham Borough Council on a Pre-Application (LPA Reference: PRE20240151) in relation to proposals at the Former Tollgate Hotel, Watling Street, Gravesend, Kent.
- 2 The development proposals include:
 - Demolition of all existing buildings on the Site, in favour of an EV Hub albeit with an initial petrol offer
 - Provision of 24 Electric Vehicle Charging points
 - Erection of a single storey building that is likely to be used as a forecourt shop and café area similar to a petrol filling station with wraparound canopy
 - Erection of six petrol/diesel fuel pump islands in a domino six layout, with a canopy above and fuel storage tanks below, all to the rear of the amenity building
 - Provision of two air/water bays
 - Provision of customer parking to the front on the retail building
 - Construction of vehicle access and circulation areas, with access to the site via the existing albeit improved crossover
 - Provision of supporting infrastructure such as a sub-station and plant room and Perimeter landscaped areas, including new trees, to provide a soft interface between the development proposal and its wider context
- 3 We note that as the proposals stand, based on DfT Circular 01/2022, the facility would not be eligible for signing from the SRN.
- 4 The Pre-Application is supported by a Pre-Application Draft Transport Assessment (DTA) dated 29 May 2024, prepared by Markides Associates on behalf of BP Pulse.
- 5 National Highways provided an interim response to the DTA to the LPA on 10 July 2021. This included a JSJV Advice Note (AN03) and additional advice on boundary issues.

- 6 This Advice Note (AN04) follows on from the interim response, providing comments on the DTA appendices and related matters.

Review of Pre-Application Transport Assessment Appendices

- 7 This review will focus on the DTA appendices that are of relevance to the SRN, with reference to the interim response as per AN03.

| Previous Comments

- 8 As noted in AN03, the following matters are now agreed:

- Trip rates and Trip Generation
- Trip Distribution and Assignment
- Background TEMPRO growth
- Assessment Scenarios
- Collision Analysis

| Baseline Traffic Flows

Manual Classified Count Data (Appendix I)

- 9 Manual Classified Counts (MCC) have now been provided within Appendix I of the DTA as agreed during the 2023 pre-application discussion, with corresponding Network Flow Diagrams also being included that cover the following junctions:

- A227 Wrotham Road / Coldharbour Road / Wrotham Road roundabout;
- A227 Wrotham Road / A2 eastbound slip road roundabout; and
- A227 Wrotham Road / A2 westbound slip road roundabout.

- 10 Following a review of the submitted MCC data, these were conducted on 2 March 2023, which, in accordance with the guidance of TAG unit M1.2, has been undertaken on a neutral day (Thursday) within a neutral month (March). We therefore consider the submitted information acceptable with regard to MCC data.

2023, 2025 and 2028 'Baseline Flows' (Appendix K)

- 11 Traffic data collected as part of the MCC information has been presented in a series of turning flow diagrams that cover the 2023, 2025 and 2028 assessment years – this is provided within Appendix K of the submitted DTA.

| Committed Development

Committed Development Flows (Appendix L)

- 12 A list of four committed developments was submitted for confirmation with National Highways in February 2023:
- EDC/22/0168 – Ebbsfleet Central East;
 - 20221064 – Northfleet Harbourside;
 - 20210270 – Albion Waterside; and
 - Lower Thames Crossing.

- 13 These initial committed developments were accepted in principle by National Highways subject to written evidence from the LPA being provided confirming the committed development requirements.
- 14 Subsequently, a fifth committed development development was added as part of the latest DTA:
- 20141214 – Land at Coldharbour Road, Northfleet, Gravesend
- 15 **However, Appendix L of the DTA does not contain any correspondence from the LPA confirming the list of committed developments to be considered and this is still required.**

Traffic Flow Diagrams – Junction Capacity Assessments (Appendix M)

- 16 Until the committed developments have been confirmed, we are unable to comment on the acceptability of the traffic flow diagrams contained within Appendix M.

SRN Junction Capacity Assessments

A227 Wrotham Road/ A2 Eastbound Slip Road/Site Access Roundabout – ARCADY Reports (Appendix N and O)

Proposed Development Trip Impact

- 17 Based on information provided, the proposed development vehicle trip impact on the A227 Wrotham Road/ A2 Eastbound Slip Road/Site Access Roundabout is expected to be 217 two-way trips in the AM Peak hour (08:00-09:00) and 234 two-way trips in the PM Peak hour (17:00-18:00).

Junction Capacity Assessment Model

- 18 Appendix N contains 2023 base model outputs with non-adjusted slope and intercept. Appendix O contains model outputs for all modelled assessment years with manual adjustments to the slope and intercept for the A227 North Arm, as part of the calibration/validation process.

Model Geometry

- 19 Following a review of the model structure, we can confirm that the geometries, arm arrangements and labelling of each arm match the current layout of the A227 Wrotham Road/ A2 Eastbound Slip Road/Site Access Roundabout.

Modelled Flow Inputs

- 20 Use of the 'One Hour' traffic profile for the 2023 base flows correlates to the submitted traffic survey data in Appendix I of the DTA.

2023 Base Model Calibration/Validation

- 21 We have compared the 2023 base model modelled maximum queues (Appendix O) with the observed maximum queues (Appendix I) and note that there are some differences, specifically on the A227 North and the A2 eastbound off-slip.
- 22 **The calibration/validation of the 2023 base model of this junction is required to be improved so that it more accurately represents typical operating conditions at this junction during the morning and evening peak hours.**
- 23 Furthermore, until the 2023 base models are agreed, we will not review any future year models as the results of these are subject to change.

A227 Wrotham Road/ A2 Westbound Slip Road Roundabout – ARCADY Reports (Appendix P and Q)

Proposed Development Trip Impact

- 24 Based on information provided, the proposed development vehicle trip impact on the A227 Wrotham Road/ A2 Westbound Slip Road Roundabout is expected to be 98 two-way trips in the AM Peak hour (08:00-09:00) and 83 two-way trips in the PM Peak hour (17:00-18:00).

Junction Capacity Assessment Model

- 25 The DTA includes Junctions 9 ARCADY modelling of the A227 Wrotham Road/ A2 Westbound Slip Road Roundabout. We note that Appendix P contains ARCADY model outputs without lane simulation whilst Appendix Q contains ARCADY model outputs for the with lane simulation model.

Model Geometry

- 26 Following a review of the model structure, we can confirm that the geometries, arm arrangements and labelling of each arm match the current layout of the A227 Wrotham Road/ A2 Westbound Slip Road Roundabout.

Modelled Flow Inputs

- 27 Use of the 'One Hour' traffic profile for the 2023 base flows correlates to the submitted traffic survey data in Appendix I of the DTA.

2023 Base Model Calibration/Validation

- 28 We have compared the modelled maximum queues with the observed maximum queues for both the with and without lane simulation 2023 base models.
- 29 For the non-lane simulation model, we note that there are some significant differences, specifically on the A2 westbound off-slip and the A227 South.
- 30 For the lane simulation model, again we note some significant differences specifically on the A2 Westbound off slip and the A227 South.
- 31 **The calibration/validation of the 2023 base models of this junction are required to be improved so that it accurately represents typical operating conditions at this junction during the morning and evening peak hours.**
- 32 Furthermore, until the 2023 base models are agreed, we will not review any future year models as the results of these are subject to change.

A227 Wrotham Road/ A2 Eastbound Slip Road/Site Access Roundabout – Mitigation ARCADY Report (Appendix T)

- 33 Until we have agreed base and future year models of the existing junction layout, we are unable to make any substantive comments on the 'Mitigation ARCADY' model results.

A227 Wrotham Road/ A2 Westbound Slip Road Roundabout – Mitigation ARCADY Report (Appendix U)

- 34 Until we have agreed base and future year models of the existing junction layout, we are unable to make any substantive comments on the 'Mitigation ARCADY' model results.
- 35 Furthermore, we note that the 'Mitigation ARCADY' models utilise the lane simulation function within ARCADY.
- 36 **To enable a fair comparison to be made, if lane simulation is to be utilised for the 'with mitigation scheme' scenario, it should be based on a calibrated/validated 2023 base year lane simulation model of the existing layout.**

| Merge/Diverge Assessment (Appendix R)

- 37 JSJV has reviewed the merge/diverge assessment diagrams contained within Appendix R of the DTA, with reference to the corresponding section in the main DTA report.
- 38 It is important to note that we have undertaken a high - level review of these assessments, as the committed development traffic flows which are included in some of the assessed scenarios are yet to be confirmed.

- 39 Notwithstanding the above, this review has been undertaken with reference to DMRB CD 122 Geometric design of grade separated junctions and our initial conclusions are summarised as follows:

Eastbound Merge:

- Current arrangement corresponds to a Type A. However, for the PM 2023 the assessment indicates that a Type D arrangement would be required thus, it can be concluded that the current situation is already substandard
- From 2025 'Do nothing' assessment, the Type A would be insufficient, and a Type D arrangement would be required
- The DTA states that the development would not have a material impact as the merge is already substandard

Eastbound Diverge:

- The existing situation corresponds to a Type A diverge arrangement, although the assessment for PM 2023 indicates that a Type C would be required at this location thus, it can be concluded that the current situation is substandard as per the Eastbound merge
- The 2025 scenarios also required a Type C but for the 2028 Do Nothing / 2028 Do Minimum / 2028 Do Minimum sensitivity even further improvements would be required in a form of Type D (lane gain) diverge arrangement
- The DTA states that the development would not have a material impact as the diverge is already substandard

Westbound Merge

- Current arrangement is Type B and the AM/PM 2023 assessment concludes that a Type B is required, therefore the current situation in this case meets standards
- From 2025 'Do nothing' assessment, a Type D merge arrangement would be required for all scenarios
- The DTA states that there would be no material impact resulting from the proposed development, as all the 'Do nothing' scenarios would also require a Type D arrangement

Westbound Diverge

- Current arrangement is Type A and the AM/PM 2023 assessments conclude that a Type A is required, therefore, the current situation meets standards
- From 2028 'Do nothing' assessment, the Type A diverge arrangement would be insufficient and a Type C would be required
- The DTA states that there would be no material impact resulting from the proposed development

- 40 Subject to the committed development flows being confirmed, JSJV would agree, in principle, with the general conclusion that the proposed development itself would not result in any changes to the merge/diverge types required.

- 41 However, clarification is required in relation to paragraphs 6.3.7 and 6.3.8 in Section 6 of the DTA, in relation to the four-lane approach.

- 42 **References are made to lowest flows recorded within this lane criteria but we have been unable to find the corresponding merge/diverge diagrams in Appendix R in order to verify the findings, as presented in Table 6-10 of the DTA. For completeness this should be provided.**

| Improved Site Access Dimensions (Appendix S)

- 43 Appendix S consists of drawing number 22052-MA-XX-SK-C-0001- P01, titled 'ARCADY Measurements'. The drawing illustrates the proposed site access modifications.
- 44 JSJV has reviewed the above referenced drawing showing the proposed site access modifications and note that the part of the site access road which connects to the A227 Wrotham

Road/ A2 Eastbound Slip Road/Site Access Roundabout gyratory falls outside of the development's red line boundary.

- 45 We understand that it forms part of Kent County Council's local highway network and as such, this is a matter for them to consider, as the LHA. **We recommend that the Applicant contact KCC Highways for comments in respect of the proposed site access modifications.**

| A227 Wrotham Road/ A2 Westbound Slip Road Roundabout Scheme

- 46 Drawing Number 22052-MA-XX-DR-C-0102 Rev P02 'Roundabout Sign and Road Marking Proposal' illustrates the mitigation proposals for this roundabout.
- 47 The proposals comprise the removal of the left turn arrow from the nearside lane of the A2 westbound off-slip, to allow both lanes to be used to travel north towards Gravesend. It is noted that no further lane marking changes are proposed and that the existing lane length is being retained.
- 48 We will be able to provide further comments on the proposed changes once the junction modelling has been agreed.
- 49 The DTA also states that advanced signage would also be provided the slip road to advise drivers that both lanes can be utilised.
- 50 **We note that details of the proposed advanced signage have not been provided as part of the current submission and the applicant is requested to provide this for review.**

Other Matters

| Advertisement Displays

- 51 It is identified in drawing 14170-22 revision D two pole signs labelled as 'subject to consent to advertise'. Both are to be placed nearby the boundary that abuts the SRN and therefore will be visible from the SRN.
- 52 However, no assessment has been made at this stage as there is an annotation on the drawing which states that 'Any advertisements are indicative and are subject to a separate advertisement application'.

| CEMP Requirements

- 53 At the appropriate stage of the planning process, we suggest that National Highways recommends a suitable planning condition in relation to the need for a Construction Environmental Management Plan (CEMP) to be prepared, agreed with National Highways and adhered to.

Conclusion

Further information required – ideally at the pre-application stage
--

APPENDIX B – PERSONAL INJURY COLLISION DATA

A227 Wrotham Road / Wrotham Road / Coldharbour Road Roundabout

A total of 11 incidents took place at this location, of which two were classed as 'serious' with all remaining incidents classified as 'slight'.

Of the 'serious' incidents, one occurred as a vehicle was travelling along Coldharbour Road towards the roundabout. A parked car was present within the vicinity of the Morrisons supermarket and the vehicle is reported to have collided with the parked car. The vehicle has continued along Coldharbour Road. On reaching the roundabout, the vehicle has also collided with an HGV, resulting in serious injuries being sustained.

The second 'serious' incident involved a single car. The vehicle has entered the roundabout where the driver has lost control and the car has rolled. The conditions were dark and the road surface conditions were wet / damp, however, this was not reported as a causation factor in the report.

Of the 'slight' incidents, one was the result of a rear end shunt incident on approach to the roundabout.

Two 'slight' incidents were the result of the prevailing road surface conditions. The first occurred as a vehicle has entered the roundabout and aquaplaned on the standing water present at the time. The driver has subsequently lost control and the vehicle collided with a barrier. The second occurred as a car entered a large puddle of water on the roundabout. The car has lost control and collided with the barrier.

Two 'slight' incidents involved a car and cyclist. The first occurred as the car has entered the roundabout, failing to see the cyclist present on the gyratory, resulting in a collision, where the cyclist has sustained slight injuries. The second occurred as a car left the roundabout, colliding with the rear of the cyclist also on the roundabout, causing injury to the cyclist.

One 'slight' incident involved a motorcyclist. Whilst negotiating the roundabout, the motorcycle has slipped from underneath the rider, causing them to fall and sustain slight injuries. The road surface was noted as being damp / wet within the incident report.

A further 'slight' incident was the result of two cars travelling on the roundabout gyratory. One vehicle was in the inside lane and the other in the outside lane. The vehicle travelling on the outside of the roundabout has gone to turn right and cut in front of the vehicle on the inside, causing a collision.

An additional 'slight' incident occurred as a vehicle entered the roundabout travelling too close to a car already on the roundabout. The car travelling on the roundabout has braked and manoeuvred out of the way of the other vehicle. In doing so, the driver has lost control of the car, colliding with the barrier.

The final 'slight' incident involved a moped and a car. The driver of the moped has fallen from their vehicle and onto the roundabout gyratory. The rider has stood up and the car driver behind, in the process of taking evasive action, has clipped the rider with their wing mirror.

A227 Wrotham Road (North)

A single 'slight' incident was recorded in this location. A car has left the roundabout and has braked suddenly wishing to turn into the layby on the A227. Due to the wet road surface conditions and the sharp braking, the vehicle has been unable to stop in sufficient time, resulting in a rear end collision with the vehicle in front. The impacted vehicle has moved across the carriageway as a result of the impact, resulting in a further collision with an oncoming vehicle.

Wrotham Road (leading to Cyclopark)

A single 'slight' incident was recorded on Wrotham Road, leading to the Cyclopark. A car has left the roundabout. On entering Wrotham Road, the car has collided with an oncoming vehicle in an apparent loss of control incident.

A227 Wrotham Road / A2 Eastbound Slip Roads Roundabout

A total of 13 incidents were recorded at this location, of which three were classified as 'serious' and the remaining as 'slight'.

The first 'serious' incident resulted from a police chase. The vehicle that the police were in pursuit of has left the A2 and has failed to slow at the roundabout, flipping onto its roof. The second 'serious' incident occurred as two vehicles were negotiating the roundabout. In doing so, a rear end shunt incident has occurred. The final 'serious' incident occurred as a car entered the roundabout. This vehicle has collided with two cars already travelling on the roundabout resulting in serious injury. A positive breath test was taken at the scene.

The first 'slight' incident involved three cars. Two cars have left the A2 and are travelling on the off slip. One car is in the nearside lane and the other the offside lane. As the cars are approaching the roundabout, a car travelling on the roundabout has slowed with the driver believing that the vehicle in the nearside lane was going to enter the roundabout. As the car on the roundabout has slowed, the vehicle in the offside lane has entered the roundabout and the two cars have collided.

A further 'slight' incident was the result of a driver under the influence of alcohol. The car has left the carriageway and collided with a lighting column. A second vehicle has braked sharply and as a result the driver has sustained a neck injury, but no further collision took place.

Another of the 'slight' incidents occurred as a vehicle has been waiting to enter the roundabout. The car in front has reversed into the waiting car resulting in slight injury.

An additional 'slight' incident occurred as a vehicle has cut across the path of another car on entry to the roundabout, having followed their Sat Nav and been positioned in the incorrect lane for the manoeuvre.

One 'slight' incident was the result of a rear end shunt incident as a car left the roundabout travelling towards Gravesend. On leaving the roundabout, they have encountered slow moving traffic, with the vehicle in front performing an emergency stop. The vehicle travelling behind has failed to stop in time resulting in a collision.

A further 'slight' incident occurred as two vehicles have left the A2. One of the vehicles has exited the A2 'late' and as a result has undertaken the second vehicle on the slip road. The vehicle on the slip road has then cut in front of the vehicle that exited 'late'. This has resulted in a collision as the vehicle has failed to slow in time.

Another 'slight' incident occurred as a vehicle reserved into another car waiting to enter the roundabout. The report does not indicate where the reserving vehicle travelled from.

A single 'slight' incident was the result of a rear end shunt on approach to the roundabout involving two cars.

One 'slight' incident occurred during a police pursuit of a stolen vehicle. The stolen vehicle has left the carriageway, colliding with a lighting column.

The final 'slight' incident involved a cyclist travelling towards Gravesend. They have lost control and fallen from their bicycle onto the footway.

A227 Wrotham Road / A2 Westbound Slips Roundabout

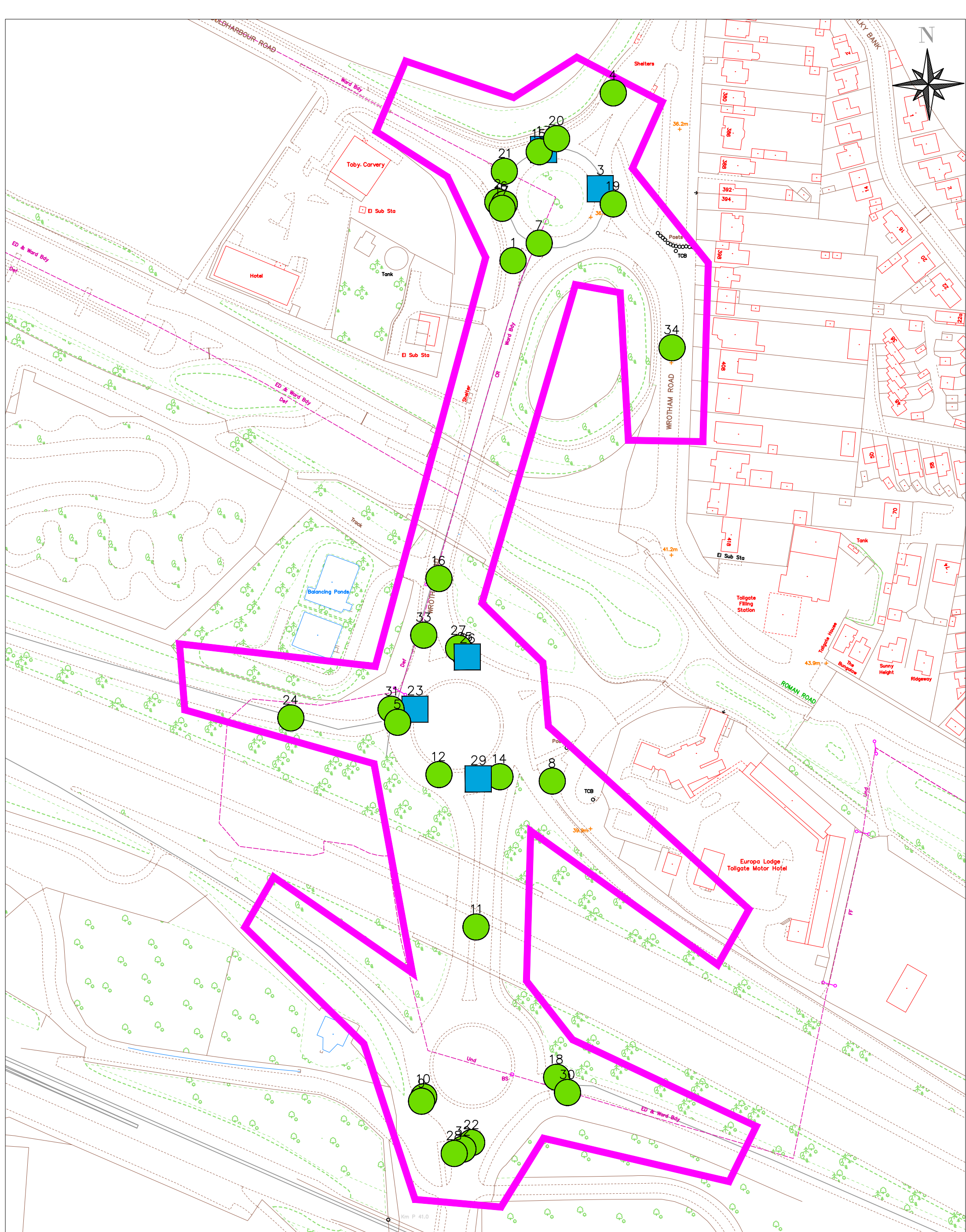
A total of seven 'slight' incidents were recorded at this location. The first incident occurred as two vehicles entered the roundabout from the A227 (S). The vehicle in the offside lane has assumed that the vehicle in the nearside lane is going to turn left, however, they continued straight, resulting in a collision.

Five incidents were the result of rear end shunts. The first was the result of a rear end shunt collision as a vehicle entered the roundabout. The car in front has braked sharply, with the following vehicle unable to stop in time. The second occurred on the A2 off slip and involved a goods vehicle failing to stop and colliding with two waiting vehicles. The third occurred on the A227 (S) and involved two cars. The fourth occurred as a vehicle attempted to enter the roundabout from the A2 off slip. However, the speed of the circulating traffic resulting in the vehicle remaining in place. The car travelling behind has then collided with the vehicle. The fifth incident occurred on the A227 (S) and involved two cars. The driver of the rear vehicle was noted to be using their phone at the time of the incident.

The final incident involved a car and a motorcycle. The two vehicles have collided as they entered the roundabout.

A2 Mainline

One 'slight' incident took place on the A2 mainline. The incident involved a motorcyclist who lost control of their motorcycle for unknown reasons, resulting in slight injuries.



Location: A227 Roundabout Junctions, Gravesend
7 years personal injury crash data up to 30/09/2022
KCC Ref number: EXT/032/23

Crash Severity	
	Slight
	Serious
	Fatal



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Date: 16-March-2023

Time: 11:28:53

Title: **A227 Rndbts, Gravesend**

Requested output: **D - Print Crash Report**

Date: 16-March-2023

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

There were 34 reported crashes resulting in injury

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend
Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
1	Road No A227 Grid 564153E Section 001 Ref 171483N	150262614 SLIGHT	14/10/2015	4	08:40	L	Dry	Fine			
	A227 Wrotham Road at Jct 10 Metres South of Coldharbour Road, Gravesend									Gravesham	
	V2 Has Approached Junction and Stopped. V1 Has Collided into the Back of V2.						Veh1, car, S -> N Veh2, car, S -> N			Casualties Vehicles	1 2
2	Road No A227 Grid 564146E Section 001 Ref 171510N	150263025 SLIGHT	21/10/2015	4	10:43	L	Wet/Damp	Rain		S.VEH	
	A227, Wrotham Road Jw Coldharbour Road, Gravesend, Kent									Gravesham	
	Driver Negotiated Roundabout of A227 with Coldharbour Road, Aquaplaned on Standing Water, Lost Control and Hit Barrier to Nearsides.						Veh1, car, SW -> N			Casualties Vehicles	1 1
3	Road No A227 Grid 564193E Section 001 Ref 171516N	150264657 SERIOUS	01/12/2015	3	11:58	L	Dry	Fine			HGV
	A227 Wrotham Road J/W Coldharbour Road, Gravesend, Kent									Gravesham	
	V1 Has Travelled Along Coldharbour Road Where V1 Has then Collided with a Stationary Parked Vehicle (V3) Outside Morrisons Supermarket. V1 Has Continued its Journey and at the Junction of Coldharbour Road and Wrotham Road. V1 Has then Collided with another Vehicle (V2).						Veh1, car, N -> SE Veh2, goods > 7.5t, N -> S Veh3, car, P -> P			Casualties Vehicles	1 3

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight

STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
4	Road No A227 Grid 564199E Section 001 Ref 171560N	160265935 SLIGHT	09/01/2016	7	12:25	L	Wet/Damp	Rain			
A227 Wrotham Road, Outside 378, Gravesend Kent									Gravesham		
V2 Has left the Roundabout, Braked Suddenly when turning into a Layby on Wrotham Road Where Number 378 is Located. Owing to the Braking & Wet Road Conditions, V1 Has Hit the Rear of V2. the Impact then Led to V2 Being Moved Forward Towards the Layby Entrance at the Time of V3 Travelling in the Opposite Direction Causing V3 to Be Hit in the Offside by V2.							Veh1, car, S -> N Veh2, car, S -> N Veh3, car, N -> S			Casualties 1 Vehicles 3	
5	Road No A227 Grid 564100E Section Ref 171271N	42128 SLIGHT	14/01/2016	5	18:15	DRK STL	Dry	Fine			
A227 WROTHAM RD J/W COASTBOUND SLIP OFF TO A2, GRAVESEND									Gravesham		
V1 TRAVELLING LANE 1 SLIP ROAD OFF A2 COASTBOUND J/W A227, V3 TRAVELLING LANE 2 SLIP ROAD OFF A2 COASTBOUND J/W A227. V2 TRAVELLING A227 ON ROUNDABOUT J/W COASTBOUND SLIP OFF A2 TOWARDS GRAVESEND. V2 SLOWED ON ROUNDABOUT AS V1 ROLLED FORWARD. V3 DROVE ONTO ROUNDABOUT COLLIDING WITH V2. V2 HAD SLOWED AS D2 THOUGHT V1 WAS GOING TO PULL OUT ONTO ROUNDABOUT IN FRONT OF IT.							Veh1, car, NW -> SE Veh2, car, S -> N Veh3, car, NW -> N			Casualties 1 Vehicles 3	
6	Road No A227 Grid 564149E Section 080 Ref 171509N	80870 SLIGHT	22/06/2016	4	15:50	L	Dry	Fine		R.TURN	P/C
A227 WROTHAM RD RNDDBT J/W COLDHARBOUR RD, WROTHAM									Gravesham		
V2 WAS TRAVELLING DOWN THE A227 AND TURNED RIGHT AT RNDDBT ONTO COLDHARBOUR RD. V1 WAS TRAVELLING UP FROM WROTHAM AND TURNED LEFT. D1 DID NOT SEE V2 AND KNOCKED INTO THEM CAUSING THEM TO FALL OFF.							Veh1, car, S -> NW Veh2, pedal cycle, NE -> W			Casualties 1 Vehicles 2	

Key

Involved
 PED Pedestrian
 HGV Heavy Goods Vehicle
 GV Goods Vehicle
 M/C Motor Cycle
 P/C Pedal Cycle
 PSV Bus/Coach

Street Lighting
 L Daylight
 STL Street Lights
 USL Street Lights Unlit
 NSL No Street Lights
 STU Street Lights Unknown

FACTORS
 +VE Positive Breath Test
 R.TURN Right Turn Manoeuvre
 O/TAKE Overtaking Manoeuvre
 S.VEH Single Vehicle

Special Conditions
 ATS OUT Traffic Lights Not Working
 ATS DEF Traffic Lights Defective
 SIGNS Road Signs Defective or Obscured
 RD WRKS Road Works
 Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved	
7	Road No A227 Section 001	Grid 564165E Ref 171491N	86319 SLIGHT	01/07/2016	6	10:35	L	Wet/Damp	Fine		S.VEH	M/C
	A227, WROTHAM ROAD J/W COLDHARBOUR ROAD, GRAVESEND									Gravesham		
	V1 has come to the roundabout, turned and leaned around the roundabout, motorbike has slipped from underneath them causing them to fall off.							Veh1, m/cycle <= 50cc, N -> SW			Casualties Vehicles	1 1
8	Road No A2 Section	Grid 564171E Ref 171244N	86830 SLIGHT	14/07/2016	5	00:01	DRK STL	Dry	Fine		+VE	
	A227 WROTHAM RD RND BT J/W A2 COASTBOUND SLIP RD, GRAVESEND (MAPPED TO LOCATION)									Gravesham		
	DRIVER OF VEHICLE WAS DRUNK AND HAS CRASHED INTO A LAMPPOST CAUSING MINOR INJURY TO DRIVER. DRIVER OF V2 HAS BRAKED HARD TO AVOID A COLLISION CAUSING NECK INJURY TO SELF, HOWEVER NO 2ND COLLISION TOOK PLACE.							Veh1, car, W -> E Veh2, car, W -> E			Casualties Vehicles	2 2
9	Road No A227 Section 175	Grid 564111E Ref 171097N	87432 SLIGHT	14/07/2016	5	08:15	L	Dry	Fine			M/C
	A227 WROTHAM ROAD RDBT J/W A2 WATLING STREET SLIP ON, GRAVESEND									Gravesham		
	V1 & V2 both travelling on Wrotham Road towards Gravesend. At roundabout j/w/with A2 London bound V1 has pulled up next to V2 believing V2 is turning left onto A2 due to their positioning and fact they are in left lane. V2 is going straight ahead & V1 is turning left. V1 collides with V2 on roundabout due to this.							Veh1, m/cycle 125 - 500cc, S -> NW Veh2, car, S -> N			Casualties Vehicles	1 2

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight
STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
10	Road No A227 Grid 564112E Section 175 Ref 171099N	92186 SLIGHT	25/07/2016	2	10:05	L	Dry	Fine			
	A227 WROTHAM RD RNDDBT J/W A2 WATLING STREET, GRAVESEND (MAPPED TO DESCRIPTION)										Gravesham
	V1 was travelling on the A227 towards Gravesend. It approached the roundabout at the Watling Street junction and drove on the roundabout. V2 suddenly put its brakes on causing V1 to impact into the rear of V2. Impact caused damage to the front drivers side front light and dislodged the bonnet of V1 and damage to the rear passenger lights. Passenger in V2 complained of neck pain was seen by paramedics but all in order.						Veh1, car, N -> S Veh2, car, N -> S			Casualties 1 Vehicles 2	
11	Road No A2 Grid 564136E Section 073 Ref 171177N	102865 SLIGHT	26/08/2016	6	18:05	L	Dry	Fine		S.VEH	M/C
	A2 LONDON BOUND, MP 38/2, GRAVESEND										Gravesham
	V1 travelling London bound on A2, lost control for unknown reason and unseated rider.						Veh1, m/cycle 125 - 500cc, E -> W			Casualties 1 Vehicles 1	
12	Road No A227 Grid 564119E Section 001 Ref 171247N	116406 SLIGHT	04/10/2016	3	05:20	L	Dry	Fine			
	A227, WROTHAM ROAD, GRAVESEND (MAPPED TO 564119,171247)										Gravesham
	V2 WAS WAITING AT THE 2ND ROUNDABOUT ON WROTHAM ROAD AND V1 REVERSED SUDDENLY AND V2, SHUNTING V2 BACK. C1 HAS SINCE HAD SHOULDER PAIN BUT HAS SEEKED MEDICAL ADVICE, C1 HAS MUSCLE SPASM IN THEIR NECK + SHOULDER AND HAS WHIPLASH.						Veh1, car, E -> W Veh2, car, E -> W			Casualties 1 Vehicles 2	

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight

STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend
Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
13	Road No A227 Grid 564167E Section Ref 171534N	137498 SERIOUS	01/12/2016	5	22:33	DRK STL	Wet/Damp	Fine		S.VEH	
	A227, WROTHAM ROAD, ON RDBT J/W COLDHARBOUR ROAD, NORTHFLEET										Gravesham
	V1 HAS ENTERED THE ROUNDABOUT AND THE DRIVER HAS LOST CONTROL AND CAUSED THE V1 TO ROLL.						Veh1, car, S -> N			Casualties Vehicles	1 1
14	Road No A227 Grid 564147E Section 001 Ref 171246N	174052 SLIGHT	09/04/2017	1	11:00	L	Dry	Fine			
	A227 WROTHAM ROAD RNDBT J/W A227 WROTHAM ROAD, GRAVESEND									Gravesham	
	V1 was travelling south from Gravesend (A227) in the direction of Meopham. At a roundabout, which connects with the A2, V1 was in lane 1 (to go left or straight ahead). V1's SAT NAV asked them to return towards Gravesend. However V2 was in lane 2 on the inside of V1 intending to go straight ahead. V1 has manoeuvred right causing V2 to collide with the offside of V1.						Veh1, car, N -> N Veh2, car, N -> S			Casualties Vehicles	2 2
15	Road No A227 Grid 564165E Section 001 Ref 171533N	186598 SLIGHT	22/05/2017	2	12:20	L	Dry	Fine			
	A227 WROTHAM ROAD, ROUNDABOUT J/W COLDHARBOUR ROAD, GRAVESEND									Gravesham	
	V2 travelling on inside lane of roundabout. V1 travelling on outside of roundabout. Sat Nav instructs D1 to turn right and then cuts into the path of V2.						Veh1, car, S -> NE Veh2, car, S -> NE			Casualties Vehicles	1 2

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight
STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend
Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
16	Road No A227 Grid 564119E Section 001 Ref 171337N	212369 SLIGHT	09/08/2017	4	17:49	L	Wet/Damp	Rain			
	A227 WROTHAM ROAD AT JN WITH ROUNDABOUT FOR A2 SLIP, GRAVESEND								Gravesham		
	V1 WAS TRAVELLING TOWARDS GRAVESEND HAVING LEFT THE A2 AT GRAVESEND CENTRAL. THE TRAFFIC WAS AT A STANDSTILL. V1 LEFT THE ROUNDABOUT ON A227 WROTHAM ROAD. THE TRAFFIC WAS SLOWLY MOVING. V2 WAS IN FRONT OF V1 AND V2 SUDDENLY STOPPED (EMERGENCY BRAKED) V1 COULD NOT STOP IN TIME AND HIT THE BACK OF V2.						Veh1, car, S -> N Veh2, car, S -> N			Casualties 2 Vehicles 2	
17	Road No A227 Grid 564148E Section 073 Ref 171507N	227489 SLIGHT	25/09/2017	2	11:45	L	Wet/Damp	Rain			M/C
	A227, WROTHAM RD RND BT J/W WROTHAM RD, GRAVESEND.								Gravesham		
	V2 TRAVELLING AROUND ROUNDABOUT. SLIPPED OFF OF VEHICLE (MOPED) WHILST MANOEUVRING. AS D1 STOOD UP THEY WERE CLIPPED BY THE NEARSIDE WING MIRROR OF V1, WHO WAS TAKING EVASIVE ACTION FROM A VEHICLE ON ITS OFFSIDE. DRIVER OF V2 KNOCKED OVER AT LOW SPEED, SLIGHT INJURY. (THE AGE OF D2/C1 IS NOT AVAILABLE)						Veh1, car, S -> N Veh2, m/cycle <= 50cc, S -> N			Casualties 1 Vehicles 2	

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight

STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
ATS DEF Traffic Lights Defective
SIGNS Road Signs Defective or Obscured
RD WRKS Road Works
Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
18	Road No A2 Section 073 Grid 564173E Ref 171108N	257764 SLIGHT	05/01/2018	6	13:30	L	Dry	Fine			GV
A2 TOLLGATE RNDDBT J/W A227 WROTHAM RD, GRAVESEND									Gravesham		
V2 WAS STATIONARY AT THE TOLLGATE RNDDBT GRAVESEND BEHIND V3 WAITING FOR V3 TO MOVE FORWARDS ONTO THE RNDDBT. V1 WAS TRAVELLING AT A HIGH SPEED COMING UP BEHIND V2. V1 COLLIDED WITH THE REAR OF V2 WHICH IN TURN CAUSED V2 TO COLLIDE WITH V3.							Veh1, goods < 3.5t, SE -> SW Veh2, car, SE -> SW Veh3, car, SE -> SW			Casualties 1 Vehicles 3	
19	Road No C364 Section 001 Grid 564199E Ref 171509N	258458 SLIGHT	07/01/2018	1	09:25	L	Dry	Fine			P/C
C364 COLDHARBOUR RD RNDDBT J/W A227 WROTHAM RD, GRAVESEND									Gravesham		
V2 travelling on Coldharbour Rd and had entered the rndbt at Wrotham Rd. V2 was crossing the rndbt and had nearly exited on the second exit when V1 came from Wrotham Rd too quickly and hit V2 from behind. R2 came off V2 and landed on road. V1 stopped and exchanged details,							Veh1, car, NE -> SE Veh2, pedal cycle, NW -> SE			Casualties 1 Vehicles 2	
20	Road No A227 Section 001 Grid 564173E Ref 171539N	262935 SLIGHT	21/01/2018	1	14:05	L	Wet/Damp	Rain			
A227, WROTHAM RD RNDDBT J/W COLDHARBOUR RD, GRAVESEND.									Gravesham		
D2 STATES THAT THEY WERE DRIVING FROM THE JUNCTION FROM WROTHAM RD, AS D2 DROVE PAST THE COLDHARBOUR RD JUNCTION TO CONTINUE ON TO THE A227 EXIT, A VEHICLE CAME FROM THE COLDHARBOUR RD JUNCTION. THIS VEHICLE DROVE TOO CLOSE TO V2 CAUSING D2 TO BRAKE AND SWERVE TO THE LEFT. D2 LOST CONTROL AND COLLIDED WITH THE BARRIERS AT THE SIDE OF THE ROAD.							Veh1, unknown veh type, NW -> SE Veh2, car, SW -> NE			Casualties 2 Vehicles 2	

Key

Involved
 PED Pedestrian
 HGV Heavy Goods Vehicle
 GV Goods Vehicle
 M/C Motor Cycle
 P/C Pedal Cycle
 PSV Bus/Coach

Street Lighting
 L Daylight
 STL Street Lights
 USL Street Lights Unlit
 NSL No Street Lights
 STU Street Lights Unknown

FACTORS
 +VE Positive Breath Test
 R.TURN Right Turn Manoeuvre
 O/TAKE Overtaking Manoeuvre
 S.VEH Single Vehicle

Special Conditions
 ATS OUT Traffic Lights Not Working
 ATS DEF Traffic Lights Defective
 SIGNS Road Signs Defective or Obscured
 RD WRKS Road Works
 Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
21	Road No A227 Grid 564149E Section 001 Ref 171524N	266307 SLIGHT	30/01/2018	3	10:27	L	Flood	Rain		S.VEH	
	A227, WROTHAM RD RNDDBT J/W COLDHARBOUR RD, GRAVESEND.								Gravesham		
	V1 NEGOTIATING ROUNDABOUT ON A227 TOWARDS GRAVESEND TOWN. V1 HIT LARGE PUDDLE ON INSIDE OF THE ROUNDABOUT, LOST CONTROL AND COLLIDED WITH NEARSIDE BARRIER CAUSING EXTENSIVE DAMAGE TO VEHICLE AND BARRIER. NO OTHER VEHICLES INVOLVED.						Veh1, car, SW -> NE			Casualties 1 Vehicles 1	
22	Road No A227 Grid 564134E Section 001 Ref 171078N	271349 SLIGHT	16/02/2018	6	13:14	L	Wet/Damp	Fine			M/C
	A227, WROTHAM RD, MEOPHAM, (MAPPED TO COORDS).								Gravesham		
	TWO VEHICLE RTC. V2 RIDER WAS KNOCKED OFF THEIR BIKE BY V1 AS IT PULLED OFF A ROUNDABOUT.						Veh1, car, S -> N Veh2, m/cycle > 500cc, S -> N			Casualties 1 Vehicles 2	
23	Road No A227 Grid 564108E Section 073 Ref 171277N	273761 SERIOUS	26/02/2018	2	20:57	DRK STL	Snow	Snow		S.VEH	
	A227 WROTHAM RD OFFSLIP RNDDBT J/W A227 WROTHAM RD, GRAVESEND								Gravesham		
	Police pursued V1. V1 took slip off A2 coastbound, but did not make the junction, went over the roundabout flipping onto its roof.						Veh1, car, NW -> NE			Casualties 2 Vehicles 1	

Key

<u>Involved</u>	
PED	Pedestrian
HGV	Heavy Goods Vehicle
GV	Goods Vehicle
M/C	Motor Cycle
P/C	Pedal Cycle
PSV	Bus/Coach

Street Lighting

L	Daylight
STL	Street Lights
USL	Street Lights Unlit
NSL	No Street Lights
STU	Street Lights Unknown

FACTORS

+VE	Positive Breath Test
R.TURN	Right Turn Manoeuvre
O/TAKE	Overtaking Manoeuvre
S.VEH	Single Vehicle

Special Conditions

ATS OUT	Traffic Lights Not Working
ATS DEF	Traffic Lights Defective
SIGNS	Road Signs Defective or Obscured
RD WRKS	Road Works
Surface	Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
24	Road No A2 Section 073	Grid 564051E Ref 171273N	284734 SLIGHT	29/03/2018	5	12:35	L	Wet/Damp	Fine		
	A2, WROTHAM RD, SLIP, GRAVESEND (MAPPED TO COORDS).										Gravesham
	V1 has been travelling along the A2 coast bound intending to come off at the slip road for Gravesend West (Ebbsfleet). V1 has pulled in in front of V2. V1 stated they 'left it late'. V2 has been in lane 2 of slip and moved to lane 1, as V1 decides to undertake. V1 has clipped/struck the offside kerb when they state V2 has gone to cut in front of them. V1 has braked hard and states their vehicle then went into the side of V2 causing damage, having appeared to lose control. No independent witnesses.							Veh1, car, NW -> SE Veh2, car, NW -> SE		Casualties 2 Vehicles 2	
25	Road No U Section 001	Grid 564131E Ref 171302N	298904 SLIGHT	19/05/2018	7	21:30	DRK STU	Dry	Fine		
	WROTHAM RD RNDDBT J/W A2 ONSLIP, GRAVESEND (MAPPED TO DESC. ORIGINAL COORDS - 564140,171424)										Gravesham
	V2 stationary about to join A2/A227 coming from Gravesend. V1 appeared from nowhere and then reversed into V2 causing damage. V1 then drove off without exchanging details. DOB unknown for D2.							Veh1, car, SE -> NW Veh2, car, SW -> SE		Casualties 2 Vehicles 2	
26	Road No A227 Section 001	Grid 564132E Ref 171301N	886669 SERIOUS	28/09/2019	7	18:10	DRK STL	Dry	Fine		R.TURN
	A227, WROTHAM RD RNDDBT J/W A2, GRAVESEND.										Gravesham
	BOTH VEHICLES NEGOTIATING A RNDDBT ON A227 WROTHAM RD, V1 HAS HIT REAR OF V2 CAUSING DAMAGE, V1 HAS INITIALLY FAILED TO STOP BUT STOPPED A FEW MINUTES LATER, D1 WAS A PROVISIONAL LICENCE HOLDER ONLY AND NO INSURANCE.							Veh1, car, SW -> NE Veh2, car, SW -> E		Casualties 1 Vehicles 2	

Key

Involved
 PED Pedestrian
 HGV Heavy Goods Vehicle
 GV Goods Vehicle
 M/C Motor Cycle
 P/C Pedal Cycle
 PSV Bus/Coach

Street Lighting

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 STL Street Lights
 USL Street Lights Unlit
 NSL No Street Lights
 STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
 R.TURN Right Turn Manoeuvre
 O/TAKE Overtaking Manoeuvre
 S.VEH Single Vehicle

Special Conditions

ATS OUT Traffic Lights Not Working
 ATS DEF Traffic Lights Defective
 SIGNS Road Signs Defective or Obscured
 RD WRKS Road Works
 Surface Road Surface Defective

D-PRINT CRASH REPORT

16-Mar-2023

11:28:53

A227 Rndbts, Gravesend
Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
27	Road No A227 Grid 564128E Section 001 Ref 171305N	978972 SLIGHT	01/09/2020	3	07:55	L	Dry	Fine			
	A227 WROTHAM RD RNDDBT J/W A227 WROTHAM RD, GRAVESEND								Gravesham		
	V2 was stationary at the rndbt travelling south on Wrotham Rd when V1 collided with its rear. (No age for V1).						Veh1, car, NW -> SE Veh2, car, NE -> SE			Casualties Vehicles	1 2
28	Road No A227 Grid 564126E Section 001 Ref 171073N	1047309 SLIGHT	22/04/2021	5	10:51	L	Dry	Fine			
	A227, WROTHAM RD J/W WROTHAM RD RNDDBT, ISTEAD RISE.								Gravesham		
	V2 approaches roundabout, V1 brakes behind but collided into the rear of V2, causing minor damage/minor injury.						Veh1, car, S -> N Veh2, car, S -> N			Casualties Vehicles	3 2
29	Road No A227 Grid 564137E Section 001 Ref 171245N	1071796 SERIOUS	30/05/2021	1	19:32	L	Dry	Fine		+VE	
	A227, WROTHAM RD RNDDBT J/W A2 WROTHAM RD, ISTEAD RISE.								Gravesham		
	V1 was travelling down the slip rd from the A2 towards Gravesend/Istead Rise. At the roundabout at the end (tollgate), V1 has entered the roundabout and collided with the passenger side of V2. V3 has then been hit at front nearside but it is unknown how, believed V2 may have spun slightly and hit V3 or V3 may have hit back of V1 as V1 has damage to rear offside.						Veh1, car, SE -> W Veh2, car, E -> W Veh3, car, E -> W			Casualties Vehicles	3 3

Key Involved

PED Pedestrian
HGV Heavy Goods Vehicle
GV Goods Vehicle
M/C Motor Cycle
P/C Pedal Cycle
PSV Bus/Coach

Street Lighting

L Daylight
STL Street Lights
USL Street Lights Unlit
NSL No Street Lights
STU Street Lights Unknown

FACTORS

+VE Positive Breath Test
R.TURN Right Turn Manoeuvre
O/TAKE Overtaking Manoeuvre
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A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
30	Road No A2 Section 001	Grid 564178E Ref 171101N	1092873 SLIGHT	24/09/2021	6	17:30	L	Dry	Fine		
	A2, WROTHAM RD, NORTHFLEET, (MAPPED TO COORDS)									Gravesham	
	OLR: D2 was in the left hand lane of the A2 to A227 slip rd, looking to join the roundabout and turn left on Wrotham Rd towards Meopham. D2 had attempted to join the roundabout but the traffic approaching from the right was speeding so D2 held position but V1 behind did not and drove into V2 rear. D1 was abusive and refused to give details. NO DOB FOR D1.						Veh1, car, E -> SW Veh2, car, E -> SW			Casualties 2 Vehicles 2	
31	Road No A2 Section 073	Grid 564097E Ref 171277N	1116588 SLIGHT	27/11/2021	7	05:29	DRK STL	Wet/Damp	Rain		
	A2, TOLLGATE SLIP OFF EASTBOUND, J/W A227, GRAVESEND (MAPPED TO COORDS)									Gravesham	
	V2 is a police vehicle following V1, a stolen vehicle. After a brief pursuit, V1 left the c/way on the nearside and collided with a lamppost.						Veh1, car, SW -> N Veh2, car, SW -> N			Casualties 1 Vehicles 2	
32	Road No A227 Section	Grid 564130E Ref 171075N	1188547 SLIGHT	10/06/2022	6	17:35	L	Dry	Fine		
	A227 WROTHAM RD RND BT J/W A227 WROTHAM RD, GRAVESEND									Gravesham	
	V1 WAS TRAVELLING NORTH ON WROTHAM RD WHILE D1 WAS USING THEIR PHONE AND COLLIDED WITH THE REAR OF V2, WHICH WAS STATIONARY ON THE APPROACH TO THE RND BT. (NO AGE OR POSTCODE FOR V1, NO DETAILS FOR V2).						Veh1, taxi, S -> N Veh2, car, S -> N			Casualties 1 Vehicles 2	

Key Involved

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M/C Motor Cycle
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Street Lighting

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STL Street Lights
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A227 Rndbts, Gravesend

Accident Date BETWEEN '01-Oct-2015' AND '30-Sep-2022'

No	Location	Reference/ Severity	Date	Day	Time	Street Lighting	Road Surface	Weather	Pedestrian Direction	Factors	Involved
33	Road No A227 Section	Grid 564112E Ref 171311N	1207309 SLIGHT	12/06/2022	1	19:24	L	Dry	Fine		S.VEH P/C
	A227, WROTHAM RD, HOTEL ACCESS, GRAVESEND (MAPPED TO COORDS)									Gravesham	
	It is believed that R1 has been travelling along Wrotham Rd A227 travelling north towards Gravesend town centre. V1 has not collided with any other vehicles, or roadside furniture. V1 has lost control and gone off bike falling into the footpath.							Veh1, pedal cycle, S -> NE			Casualties 1 Vehicles 1
34	Road No U Section	Grid 564226E Ref 171443N	1192520 SLIGHT	21/06/2022	3	07:45	L	Dry	Fine		O/TAKE
	WROTHAM RD, GRAVESEND (MAPPED TO COORDS)									Gravesham	
	V1 was seen in lane one of a roundabout, trying to turn right. After turning right and out of the roundabout, V1 collided with V2. V1 seems to have lost control.							Veh1, car, NW -> S Veh2, car, S -> NE			Casualties 2 Vehicles 2

Key Involved

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HGV Heavy Goods Vehicle
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