Transport Statement

Proposed Residential Development at 7-39 Rose Avenue, Gravesend, DA2 2LN

17th July 2025 ver. 07

Highways & Transport Planning

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Transport Statement for the proposed residential development at 7-39 Rose Avenue, Gravesend, DA12 2LN

July 2025

SITE DESCRIPTION AND LOCATION

A new residential development is proposed at Rose Avenue, Denton, Gravesend on a site presently occupied by 17 residential properties within 11 buildings. The proposed development comprises 29 affordable residential units, comprising 7 x 1 bed (2 person), 2 x 2 bed (3 person), 13 x 2 bed (4 person) and 7 x 3 bed (5 person) apartments with 36 car parking spaces and 30 cycle spaces, together with a new access road connecting to Rose Avenue. One existing house (no 7 Rose Avenue) will be retained as part of the proposals. The site is in the planning jurisdiction of Gravesham Borough Council, which is also the highway authority. The site location is shown on the plan, street map and aerial photograph at **Appendix A**.

Highways and Transport Planning have been instructed to advise on transport and highways issues to support the planning application.

The development will be constructed to the north-eastern side of Rose Avenue with associated car parking and a new access road at the site (see **Appendix B** for the site plan).

Several views along Rose Avenue at the site frontage/close to where the proposed access will be located are shown below at **Figures 1, 2, 3 and 4** to give an indication of the parking and street scene at and close to the proposed site.

Figure 1 – Looking south-east along Rose Avenue from the proposed site access location

Figure 2 – Looking north-west along Rose Avenue from the proposed site access location

Figure 3 – Looking towards the site frontage from the junction of Rose Avenue with Dickens Road

Figure 4 – Looking south towards Rose Avenue junction from Ingoldsby Road

Figure 4 – Looking north along Dickens Road close to Rose Avenue junction

The site is in Gravesend, approximately 2.4km from Gravesend Rail Station and 2.1km from town centre amenities. The site is surrounded by residential development to the east, west and south with the Riverside Community Resource Trust Community Centre and Family Hub to the north.

POLICY CONTEXT

National Planning Policy Framework (December 2024)

The National Planning Policy Framework (NPPF) sets out the following guidance and advice in respect of transport and highways matters:

"Chapter 9. Promoting sustainable transport

109. Transport issues should be considered from the earliest stages of plan-making and development proposals, using a vision-led approach to identify transport solutions that deliver well-designed, sustainable and popular places. This should involve:

a) making transport considerations an important part of early engagement with local communities;

b) ensuring patterns of movement, streets, parking and other transport considerations are integral to the design of schemes, and contribute to making high quality places;

c) understanding and addressing the potential impacts of development on transport networks;

d) realising opportunities from existing or proposed transport infrastructure, and changing transport technology and usage – for example in relation to the scale, location or density of development that can be accommodated;

e) identifying and pursuing opportunities to promote walking, cycling and public transport use; and

f) identifying, assessing and taking into account the environmental impacts of traffic and transport infrastructure – including appropriate opportunities for avoiding and mitigating any adverse effects, and for net environmental gains.

110. The planning system should actively manage patterns of growth in support of these objectives. Significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. This can help to

reduce congestion and emissions, and improve air quality and public health. However, opportunities to maximise sustainable transport solutions will vary between urban and rural areas, and this should be taken into account in both plan-making and decision-making.

111. Planning policies should:

a) support an appropriate mix of uses across an area, and within larger scale sites, to minimise the number and length of journeys needed for employment, shopping, leisure, education and other activities;

b) be prepared with the active involvement of local highways authorities, other transport infrastructure providers and operators and neighbouring councils, so that strategies and investments for supporting sustainable transport and development patterns are aligned;

c) identify and protect, where there is robust evidence, sites and routes which could be critical in developing infrastructure to widen transport choice and realise opportunities for large scale development;

112. If setting local parking standards for residential and non-residential development, policies should take into account:

a) the accessibility of the development;

b) the type, mix and use of development;

c) the availability of and opportunities for public transport;

d) local car ownership levels; and

e) the need to ensure an adequate provision of spaces for charging plug-in and other ultra-low emission vehicles.

113. Maximum parking standards for residential and non-residential development should only be set where there is a clear and compelling justification that they are necessary for managing the local road network, or for optimising the density of development in city and town centres and other locations that are well served by public transport (in accordance with chapter 11 of this Framework). In town centres, local authorities should seek to improve the quality of parking so that it is convenient, safe and secure, alongside measures to promote accessibility for pedestrians and cyclists.

114. Planning policies and decisions should recognise the importance of providing adequate overnight lorry parking facilities, taking into account any local shortages, to reduce the risk of parking in locations that lack proper facilities or could cause a nuisance. Proposals for new or expanded distribution centres should make provision for sufficient lorry parking to cater for their anticipated use.

Considering development proposals

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

a) sustainable transport modes are prioritised taking account of the vision for the site, 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 through a vision-led approach.

116. 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, following mitigation, would be severe, taking into account all reasonable future scenarios.

117. Within this context, 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.

118. 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 vision-led transport statement or transport assessment so that the likely impacts of the proposal can be assessed and monitored.

Local Policy – Gravesham Borough Council Local Plan Core Strategy September 2014

Policy CS11: Transport

5.5.38 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.

5.5.39 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.

5.5.40 The Council will support proposals which improve public transport provision and facilities in the Borough. In particular, it will:

• seek to maintain and expand, where justified, segregation lanes for Fastrack and existing bus priority measures elsewhere;

• require Key Sites to include provision for buses;

• support the development of transport hubs at Gravesend Town Centre and Ebbsfleet (in Dartford Borough Council area) to provide high quality interchange facilities between bus, rail, walking and cycling; and

• Ensure an adequate supply of public car parking.

5.5.41 The Council will seek improvements to walking and cycling facilities and networks in the Borough including provision in new development as appropriate. These should provide improved access to Gravesend Town Centre and Ebbsfleet and to other services and facilities in the Borough. In particular, the Council will seek the provision of pedestrian and cycle links between Northfleet and Ebbsfleet stations and along the River Thames, as part of the proposed Thames Estuary Path.

5.5.42 Land required for the possible future extension of Crossrail and to protect the High Speed 1 (HS1) railway is safeguarded on the Policies Map and proposals that would prejudice these will be refused.

5.5.43 The Council will support proposals which improve the efficiency of freight transport and provide opportunities for alternatives to road transport where possible.

The Council will safeguard wharves, as shown on the Policies Map, subject to the provisions of paragraph 5.1.36 of Policy CS07 (Economy, Employment and Skills).

5.5.44 The Council will support proposals which facilitate the use of the River Thames for passenger transport and enable cruise liners to visit the Borough.

Pre-Application Response for advice from Gravesham Borough Council dated 2 July 2024

Highways & Parking

The proposed development needs to be considered against Policy CS11 (LPCS) which states that new development should mitigate their impact on the public highway and that transport assessments should be provided and implemented to ensure delivery of travel choice and sustainable opportunities for travel. Furthermore, it states that sufficient car parking in new developments will be provided in accordance with adopted standards which will reflect the availability of alternative means of transport accessibility to services and facilities. This is also reflected by Saved Policy T1 (LPFR) which requires proposed development to be adequately served by the highway network and Saved Policy P3 (LPFR) which sets out highways parking standards for development.

At a national level the NPPF (2023) states at paragraph 105 significant development should be focused on locations which are or can be made sustainable, through limiting the need to travel and offering a genuine choice of transport modes. The NPPF (2023) goes on to state development should only be prevented or refused on transport grounds where the cumulative impact of development is severe. The proposal would provide 36no. parking spaces for future occupiers, with 6 of these spaces for visitors. Gravesham's adopted parking standards (SPG4) (2006) requires 1 space per 1-bedroom dwelling and 2 spaces per 2 / 3-bedroom dwelling. This would require the provision of 59 spaces (7x1b /14x2b / 8 x3b) and therefore the 36no. proposed falls significantly below this figure.

As aforementioned in this report, the site is in an edge of centre location which is close to a parade of shops providing some amenities. However, it is 2.4km from Gravesend Railway Station and 2.1km from Town Centre amenities. Therefore, it is important to provide justification for the under provision of parking within a future application with the submission of a parking survey, that includes details of public transport provisions, distances to amenities etc.

There is cycle storage proposed, with 30 no. secure spaces provided. Gravesham's adopted parking standard (SPG4) (2006) requires one secure cycle space per dwelling and therefore 29 secure spaces should be provided within the development. As such, the proposed cycle storage proposed is acceptable.

***Kent Fire** – Following my assessment of Fire and Rescue Service emergency access provisions for application number PRE20240024. I would like to make the following observations. My assessment has been conducted against the documentation supplied as listed below:*

Documents supplied

- *1100 Rev 00 Proposed Site Plan*
- *5200 Rev 00 Demolition Plan*
- *1000 Rev 00 Site Location Plan*
- *Baily Garner Pre-Planning Design & Access Statement*

Observations

1. The access road onto and around the site should be constructed to achieve the minimum requirements of table 13.1 of Approved Document B Volume 1 2019 incorporating the 2020 & 2022 amendments with the variation of the minimum weight bearing capacity being increased to 16 tonnes to accommodate the current Kent Fire & Rescue Service fleet.

2. The road network within the site should be designed to ensure that no fire appliance should be required to reverse more than 20m in accordance with diagram 13.1 of the approved document.

3. Access should be provided to all blocks of flats to ensure the maximum hose laying distance of 45m will be achieved. Where this cannot be achieved an internal fire main will need to be provided in accordance with BS 9990. In these cases access for a fire appliance will be required to within 18m of the inlet point for all fire mains.

Applicants should be aware that in the event of planning permission being granted the Fire and Rescue Service would require emergency access, as required under the Building Regulations 2010, to be established. Fire Service access and facility provisions are a requirement under B5 of the Building Regulations 2010 and must be complied with to the satisfaction of the Building Control Authority. A full plans submission should be made to the relevant building control body who have a statutory obligation to consult with the Fire and Rescue Service.

Summary

In summary, national and local policy and guidance sets out that:

- The opportunities for sustainable travel should be taken by new developments, i.e. that the development is accessible by a range of modes of transport including walking, cycling and public transport;
- Access arrangements should be safe and suitable for all users, including emergency services and their own requirements;
- The traffic impact should be assessed appropriately for the scale of the development;
- Adequate levels of car and cycle parking should be provided;
- Fundamentally, development should only be prevented from coming forward for transport reasons where the residual cumulative impacts are 'severe'.

An assessment of the development proposals in the context of this policy, guidance and pre-application advice is set out within this report below.

EXISTING TRAFFIC CONDITIONS AND PUBLIC TRANSPORT PROVISION

Site Location

The site is located to the northern side of Rose Avenue, Denton and is approximately 2km from Gravesend town centre in the Gravesham Borough Council planning jurisdiction.

Local Highway Network

Access to the development will be via a new access road onto Rose Avenue where access will be suitable for most vehicles including refuse collection, emergency services, delivery vehicles, cars and vans.

Rose Avenue links to A226 Rochester Road from either end via Dickens Road to the west and Ingoldsby Road to the east. Rochester Road links to Gravesend in the west and Higham to the east via Gravesend Road, which in turn connects to A289 and M2 motorway to the southwest.

Rose Avenue and the adjacent roads are single carriageways all being within a 20-mph speed zone with some speed reducing features such as speed cushions in place, although there are none on Rose Avenue itself. Rose Avenue has an unkerbed shared pedestrian/vehicular surface with several chicanes formed by different coloured pavers to indicate the route for vehicles to travel along. There are no waiting/parking restrictions for most of the roads close to the site, including Rochester Road but there are marked parking bays on-street there and a 30-mph speed limit is in place.

A check on the road collision situation locally was made on the Crashmap UK website and is shown at **Appendix C**. Whilst there have been 10 slight collisions to the south-west of the site along Rochester Road but there do not appear to have been any road collisions in the close vicinity of the site or access for the 5-year period available between 2019-2023. The local highway network and site access location does not have a road collision problem which could be exacerbated by the traffic likely to be generated by the approved development.

Walking and Cycling Infrastructure

Rose Avenue has footways to both sides, providing safe pedestrian access in both directions which in turn link to Rochester Road towards the town centre. There are no designated on-road cycle facilities in this part of Gravesend, but Rochester Road has several sections of cycle only or shared cycle paths on the south-western side from the Old Road East/Rochester Road roundabout to just beyond the entrance to St John's Catholic Primary School, which are very beneficial for local cycling.

Public Transport

The site is located in an edge of town centre location close to a parade of shops with some local amenities. There are 7 bus services passing close to the site at Rochester Road, close to Dickens Road to various local destinations (see bus map at **Appendix A**). The nearest bus stops are on Rochester Roads, approximately 100m for eastbound services and 200m walk for westbound services either side of the site, which serve bus routes 190, 416, 417, 481, 489, 490, and 491. The routes and frequencies of these services are summarised below:

Service 190 runs every 20 minutes in each direction between Chatham to Gravesend;

Service 416 runs every 1.5 -2 hours Meopham to Gravesend;

Service 417 runs every 3 hours Gravesend to Cliffe;

Service 481 runs every 30 minutes in each direction between Riverview Park to Gravesend;

Service 489 runs in each direction between New Ash Green to Gravesend;

Service 490/491 runs every 50 minutes in each direction between Gravesend to Riverview Park or Valley Drive.

There is a railway station at Gravesend, which is approximately 2.4km. walking distance from the site. From Gravesend Station there are regular direct services to London St Pancras, London Victoria London Charing Cross, Rainham (Kent), Ramsgate, Faversham and Luton. Gravesend railway station is primarily served by Southeastern trains with off-peak services every 30 minutes approximately.

During peak periods trains call at Gravesend Station every 10-30 minutes in both directions.

Local Parking Demand

On-street parking demand locally in the Rose Avenue locality is not particularly high during the working day and numerous spaces are still available on-street in the surrounding area. There is parking availability off-street for many houses on the residential roads nearby, including Rose Avenue.

The nature of the observed parking activity in the area during a daytime visit to the site indicates that there is a large amount of kerb space locally available for drivers, but some of these

opportunities are limited by dropped kerbs to private dwellings. Despite this, drivers appear to park sensibly and the parking in the area is quite well regulated.

No vehicles were noted parking on either the single or double yellow line sections of waiting restrictions in the locality during the site visit, so no issues of non-compliant parking were apparent at the time which could affect road safety or capacity at or close to the site. The overnight residential parking demand is described in more detail below.

Parking Stress Surveys

In order to fully assess the local overnight on-street parking demand, a standard Lambeth Methodology parking stress survey was carried out in the area for a full 200m minimum walking distance from the site, to determine the normal residential parking demand for the area. The surveys were carried out overnight (0100 hours) on Tuesday 10th and Wednesday 11th December 2024.

The results of the survey are indicated at **Appendix D.** The standard Lambeth Methodology for the surveys was adopted and the plotted results are shown with an "x" where cars are parked.

The nature of the observed parking activity in the area during the parking surveys carried out indicates that there is quite a lot of kerb space locally available for drivers across the area, particularly in the closest roads to the site, such as Rose Avenue itself, Ingoldsby Road and Rochester Road. As a result of the combination of the local waiting restrictions, unrestricted parking availability and residents parking reasonably sensibly, the parking in the area appears to be quite well regulated. There some minor instances of cars being parked on double yellow lines overnight in some locations within the survey area.

Considering the results of each parking beat survey over the 2 evenings for comparable times of the day, the results were very similar on both days.

Overnight at 0100 hours on a Tuesday and Wednesday (the recommended time used for the Lambeth Methodology surveys is between 0100-0500 hours), in terms of unrestricted kerb space, the overall parking stress in the survey area was 65% and 62% respectively, with between 63-68 car spaces being available across the whole area surveyed. For the whole area including sections of unrestricted bays and disabled permit bays the parking stress was 69% and 66% respectively with between 73 to 82 car spaces being available across the whole survey area. In addition to this there were sections of road on nearby Dering Way where there are single yellow lines in place, but cars can legally park overnight where the parking stress was 0% for both evenings with a further 46 car spaces being available.

Close to the site, for Rose Avenue for unrestricted kerb space the parking stress was only 52% and 40% respectively for each day, with between 12-15 spaces being available, with another 4-8 spaces available in the unrestricted bays. At Dickens Road, the parking stress was 73% and 71% respectively on these nights with 15-16 spaces being available. For Ingoldsby Road the parking stress was 69% on both evenings with 22 spaces are available on both days. The short section of Rochester Road which has both unrestricted parking bays and unrestricted kerb space within the 200m walking distance of the survey was included had 48% and 44% stress respectively with 13-14 spaces for the unrestricted kerb space and 80% stress on both evenings for the unrestricted bay with 6 spaces.

The usual measure for overall parking stress to be considered a problem in a residential locality is if it is found to be in excess of around 85%. There were no roads in the survey area where this localised level of parking stress was exceeded but it was recorded at 85% in Rose Avenue on one evening for the unrestricted bays but this stress relates to there being 4 spaces being available for just 26 bays surveyed at this location.

It is apparent that overall, the area parking stress in the site locality is not high and stress levels were consistent across the 2 survey days and a significant number of parking spaces were always available on-street or in bays for each survey period, a minimum 63 unrestricted spaces, 82 spaces if parking legally on in unrestricted bays is included) across the whole area. If sections of single yellow lines are included (where car can park overnight) an additional 46 spaces are available in the survey area.

Should the occupants of the development without an on-site car parking space choose to own or make use of a car a potential of additional vehicles on-street in the area will not adversely impact on the parking stress in the area. With a minimum of 63 on-street spaces being available, the potential impact of several vehicles arising from the proposed residential development would be insignificant.

If there were to be an increase in parking demand, the current parking situation on street would permit a significant overspill of parking from the development and that any parking that did occur would be limited and could easily be dispersed and absorbed over the wider area if necessary.

PROPOSALS

The proposals for 29 affordable units accessed by a new 6m wide shared surface access road will have the appropriate refuse storage and car parking provision for 36 vehicles (please see **Appendix B** for site plans).

Parking provision

The site has a total of 36 unallocated car parking spaces (including 1 retained space on the retained dwelling frontage, 3 Blue Badge bays, 6 visitor bays and 30 electric vehicle charging points), and the proposed revision to the site frontage in Rose Avenue results in the loss of 10 on-street unrestricted car parking bays but there will be a replacement by 4 on-street parallel parking bays. There will also be 30 secure and covered cycle parking spaces.

Gravesham's adopted parking standards (SPG4) (2006) permits a **maximum** of 1 space per 1-bedroom dwelling and 2 spaces per 2/3-bedroom dwelling. For the development of 29 units, comprising 7 x 1 bed, 15 x 2 bed and 7 x 3 bed apartments, a **maximum** provision of 51 spaces (7 + 44 spaces) could be permitted. This therefore accords with the parking standard since it does not exceed the maximum permitted parking provision. As stated in the vehicle parking standards (paragraph 56): *"Within developments of varying dwelling size provision should be established initially on the basis of the size mix of the units proposed. Subject to discussion with the local planning authority there may be scope in mixed developments, particularly at higher densities, for sharing of car park spaces resulting in lower overall provision than implied by application of the standards for each dwelling size category. More stringent standards may be acceptable to developments in town centres."*

It should be noted that the latest Kent County Council parking standards in their supplementary planning guidance (January 2025) recommend 1 car space per apartment/up to 3 bed houses for edge of centre locations (up to 2 spaces per 3 bed houses for suburban locations).

This site is on the edge of the town centre, has varying dwelling size and as a result it is anticipated that a parking provision much less than the maximum permitted is appropriate. The results of the parking stress survey demonstrate that should there be a need for additional car parking above the level provided on-site there is more than enough on-street parking capacity in the locality and no significant parking impact would result.

Servicing and refuse collection

Refuse collection will take place from the proposed refuse storage locations for each of the 4 residential blocks. All refuse stores to the blocks are within the required 15m drag distance (as per the Planning Guidance on Waste Collection Requirements - August 2024) from the stores to the carriageway within the turning areas/access fronting the units/access road or directly from Rose Avenue frontage for block B.

Autotrack swept path analysis has been carried out for the typical refuse used by Gravesham Borough Council and vehicles can turn, enter and leave the site in forward gear using the new access to Rose Avenue (see **Appendix E**).

The submitted refuse vehicle swept path drawings also demonstrate that fire tender/emergency vehicles will be able to enter and leave the site via the new access road, since they are typically smaller with shorter wheelbase than the refuse vehicles. Similarly, delivery vehicles will also be able to access the site.

TRANSPORT IMPACT

The number of person and vehicles trips generated by this residential development will be very low in the context of the adjacent residential areas, so any difference will be hardly noticeable to others using the local transport network.

We have used TRICS trip generation rates for a development of apartments to give an indication of the potential vehicle trips that could arise from the proposed 29 units (see **Appendix F**).

Potential Car Trips from 29 apartments

	ARRIVALS		DEPARTURES		TOTAL	
	Trip Rate Per Unit	Predicted Traffic	Trip Rate Per Unit	Predicted Traffic	Trip Rate Per Unit	Predicted Traffic
AM Peak 0800 - 0900	0.030	0.87	0.174	5.05	0.204	5.92

PM Peak 1700 - 1800	0.129	3.74	0.098	2.84	0.227	6.58

The total peak period vehicle trips arising from the 29 apartments could be in the order of 6 cars in the AM peak and 7 cars for the PM peak. So, on average there could be 1 car every 10 minutes entering or leaving the site during both the AM and PM peak periods.

There are no vehicle trips information for the existing site use for comparison with the predicted trips, so the above trips may be considered as all new and net trips. It could be assumed that the existing 17 residential units could generate a total of around 4 vehicles during both peak traffic periods. Assuming the above estimate of existing traffic flows there could be a net increase of around 3 vehicles in the peak periods (1 vehicle every 20 minutes).

Even if the above vehicle trips arising from the proposed development are considered as all new ones (assuming the existing site has no or minimal existing trip generation) there will not be a perceptible traffic impact arising from the vehicle trips arising from the proposals and they will be indiscernible amongst the existing vehicle trips at the existing site access, Rose Avenue and the local highway network.

CONCLUSIONS

- The site is well located in terms of its accessibility to local amenities and public transport services.
- The car parking provision for the development accords with the Gravesham Borough Council and Kent County Council policy/vehicle parking standards and the Building Regulations in respect of at least 1 electric vehicle charging point per dwelling (30 in total).
- The surrounding on-street parking conditions are such that overspill or additional parking that could arise from the proposals would have a minimal effect during the normal working day and overnight/during the evening. If there were to be an increase in parking demand it is clear from the parking surveys that with an area overnight total parking stress of 62-65%, there is sufficient on-street parking (minimum 63 spaces) in the locality to deal with the small number of vehicles that could potentially arise.
- The land-use for residential development would result in a minimal increase vehicle movement and have no significant impact on the road safety or capacity aspects of the site access and/or locality.
- Refuse collection and servicing can be achieved as per the arrangements afforded by the refuse storage area accessed from the site access and Rose Avenue where required and does require vehicles to enter or leave the site in other than a forward gear.
- The traffic and parking impact on the local highway network will be negligible.

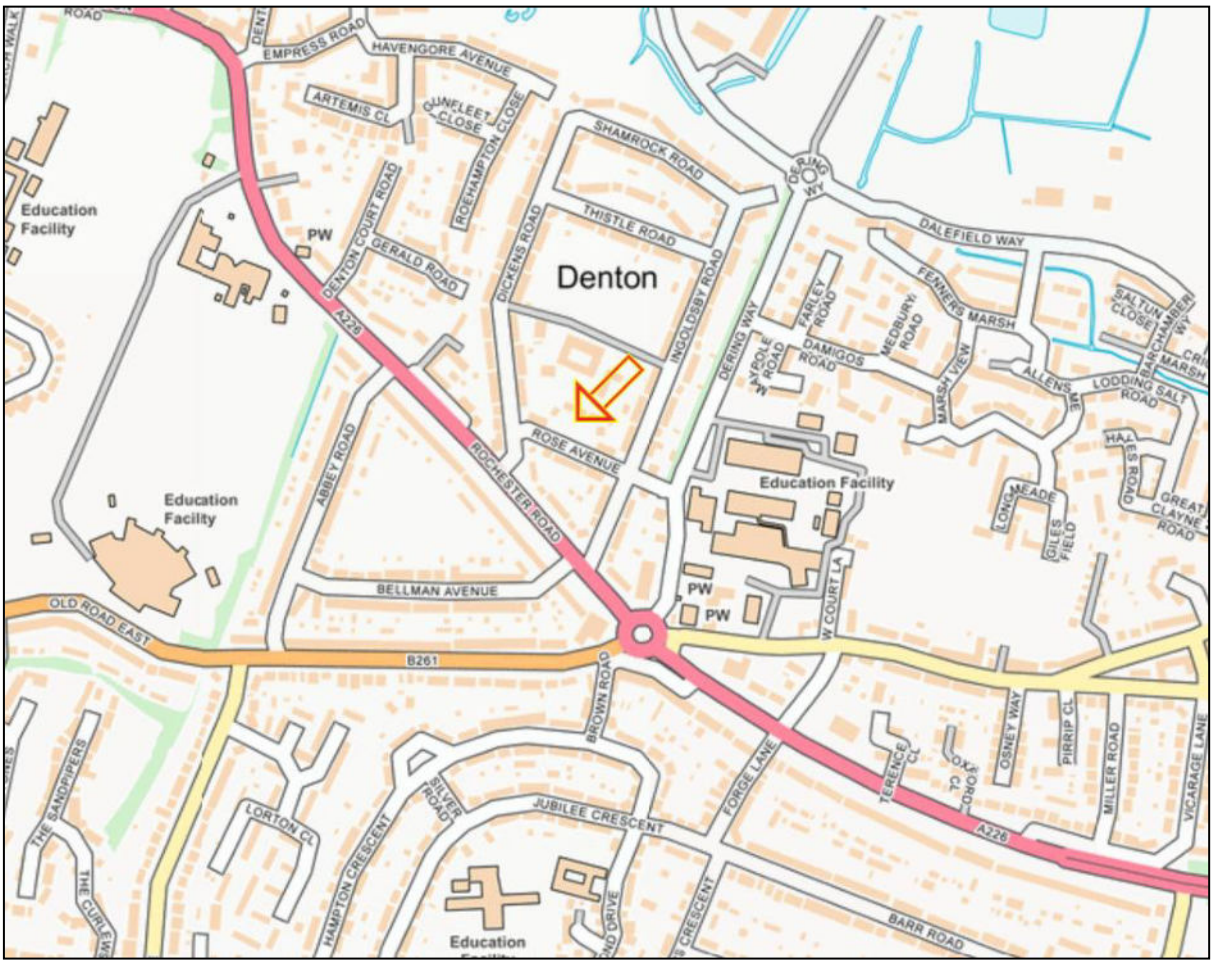
Accordingly, we believe there are no sustainable reasons for refusal of this proposal on highway or transport grounds.

CCM – 17/07/25

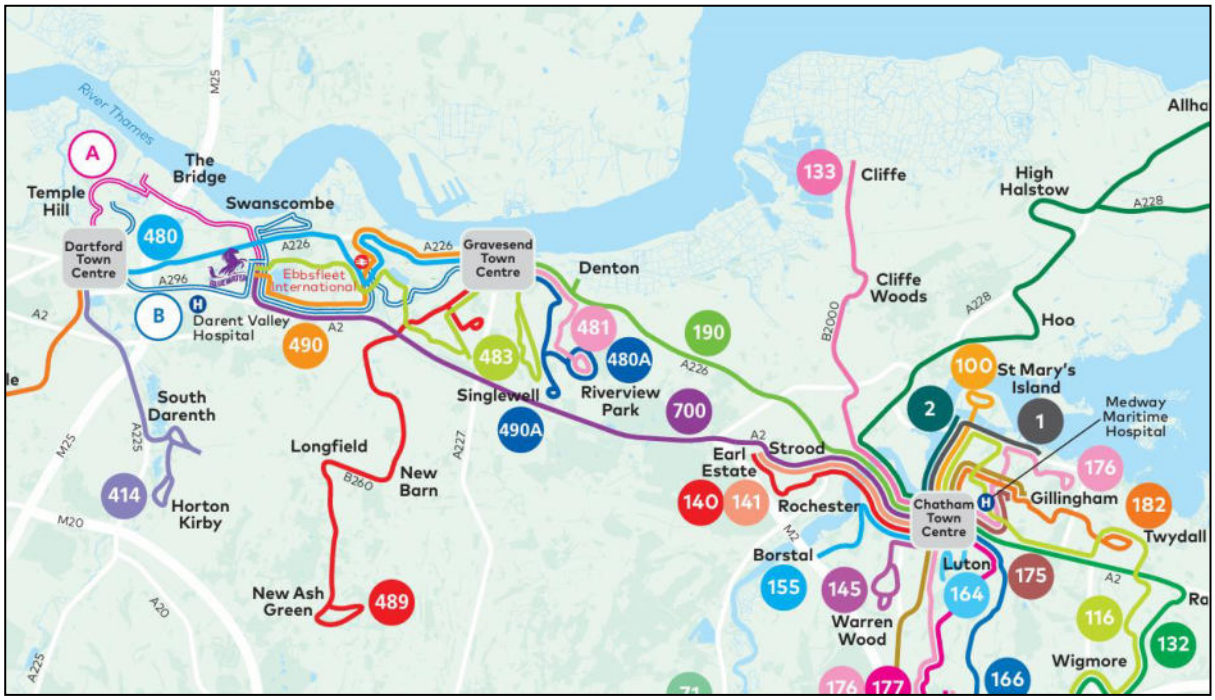
Appendix A

Aerial photograph of site location

Site location on street map



Public Transport – Bus routes



Appendix B - Proposed Site Plans

A1

The contractor is responsible to ensure that no products are to be utilised that do not comply with relevant British and/or European Standards and/or Codes of Practice, COSHH Regulations, Construction Regulations, or which are known or suspected at the time of product selection and/or construction to be deleterious to health and safety or to the durability of the work or not in accordance with good building practices.
The contractor is responsible for checking dimensions, tolerances, levels and references. This drawing/model is to be read in conjunction with all relevant Other Project Team Members' or specialists' drawings/models/any Federated Model. Any discrepancy is to be notified to Baily Garner LLP and is to be rectified before proceeding with the works on site or shop drawings. Where an item is covered by drawings to different scales, the larger scale drawing is to be worked to.

The drawing to be read in conjunction with:Document Suitability Codes page or at www.bailygarner.co.uk/disclaimer/

Notes

All heights are in 'mm' Above Ordanance Datum (AOD)

For more detailed information on landscape please refer to Landscape Architects drawings submitted alongside this application. Level information provided by topographical survey and landscape arachitect.

Key

- Site boundary (0.41ha)
- Existing trees
- Proposed trees
- Trees to be removed
- C External Cycle Store
- B External Bin Store
- Existing 'Home Zone' - alterations to suit proposed development
- EV Charging Point
- +XXXX Proposed Level
- +XXXX Existing Level

Rev	Description	Date
P01	Planning Submission	01/08/25

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PROJECT ADDRESS
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Gravesend
DA12 2LN

PROJECT NAME
Rose Avenue

DRAWING TITLE
Proposed Site Plan

SUITABILITY CODE
Planning

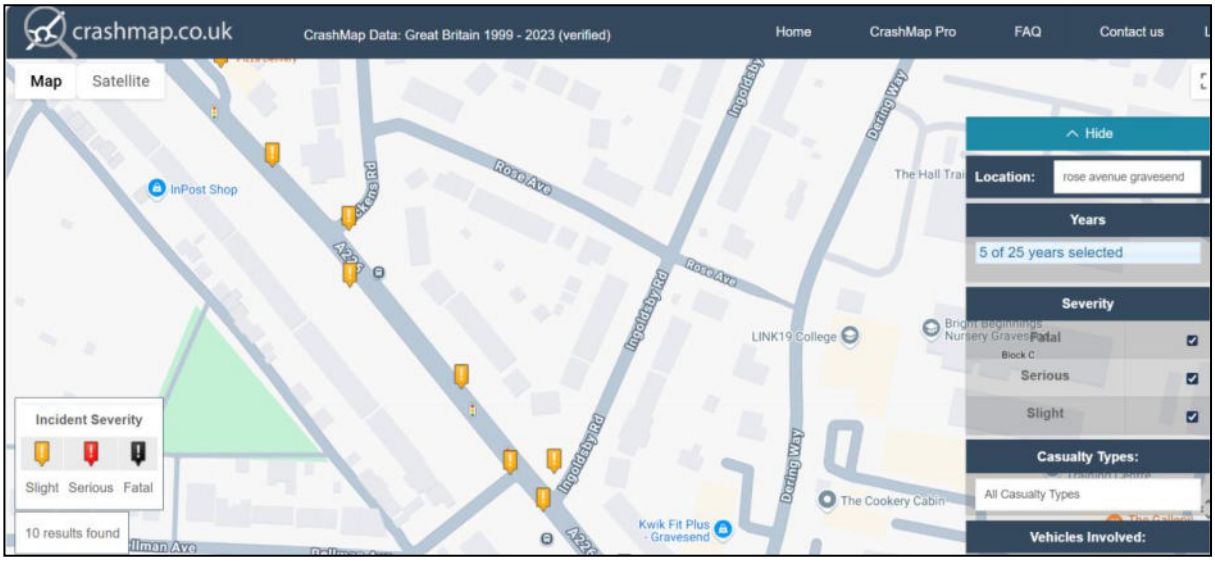
SCALE	DRAWN	CHECKED	APPROVED	DATE
1:200	KS	RP	DB	01/08/25

PROJ NO	AUTHOR	VOLUME	LEVEL	DOCTYP	ROLE	DRW NO	REV NO
35404	BGL	A1	XX	DR	A	1101	P01

Appendix C

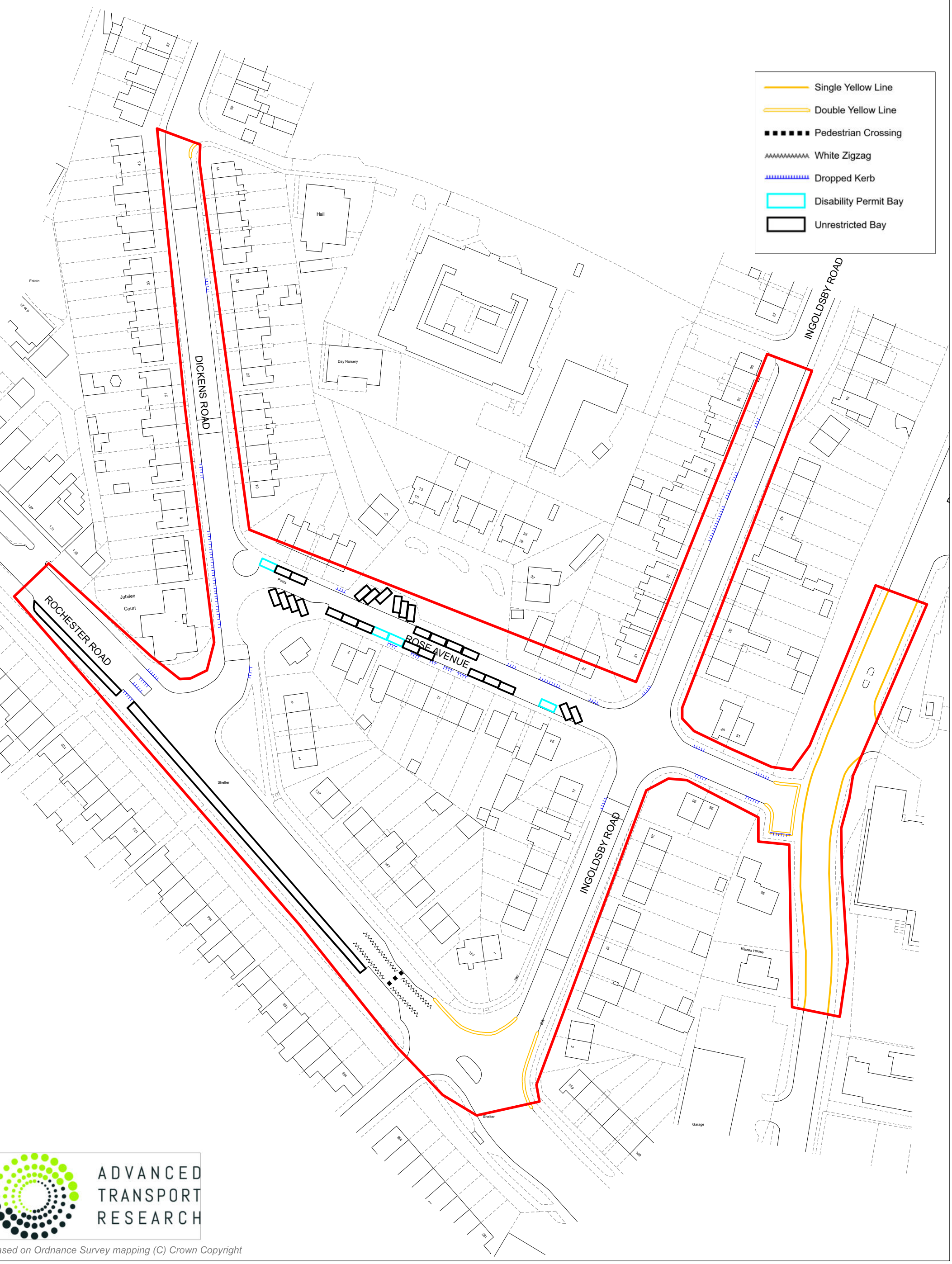
Crashmap UK Road Collisions

Latest 5 years available 2019-2023



Appendix D - Parking Stress Survey Results

41616 Rose Avenue, Gravesend, DA12 2JY
Street Inventory
Tuesday 10th December 2024



ADVANCED TRANSPORT RESEARCH

41616 Rose Avenue, Gravesend, DA12 2JY
Parking Beat
0100
Wednesday 11th December 2024

Single Yellow Line
Double Yellow Line
Pedestrian Crossing
White Zigzag
Dropped Kerb
Disability Permit Bay
Unrestricted Bay

DICKENS ROAD
ROCHESTER ROAD
ROSE AVENUE
INGOLDSBY ROAD
Jubilee Court
Hall
Day Nursery
Kilcrea House
Garage
Shelter
Posts

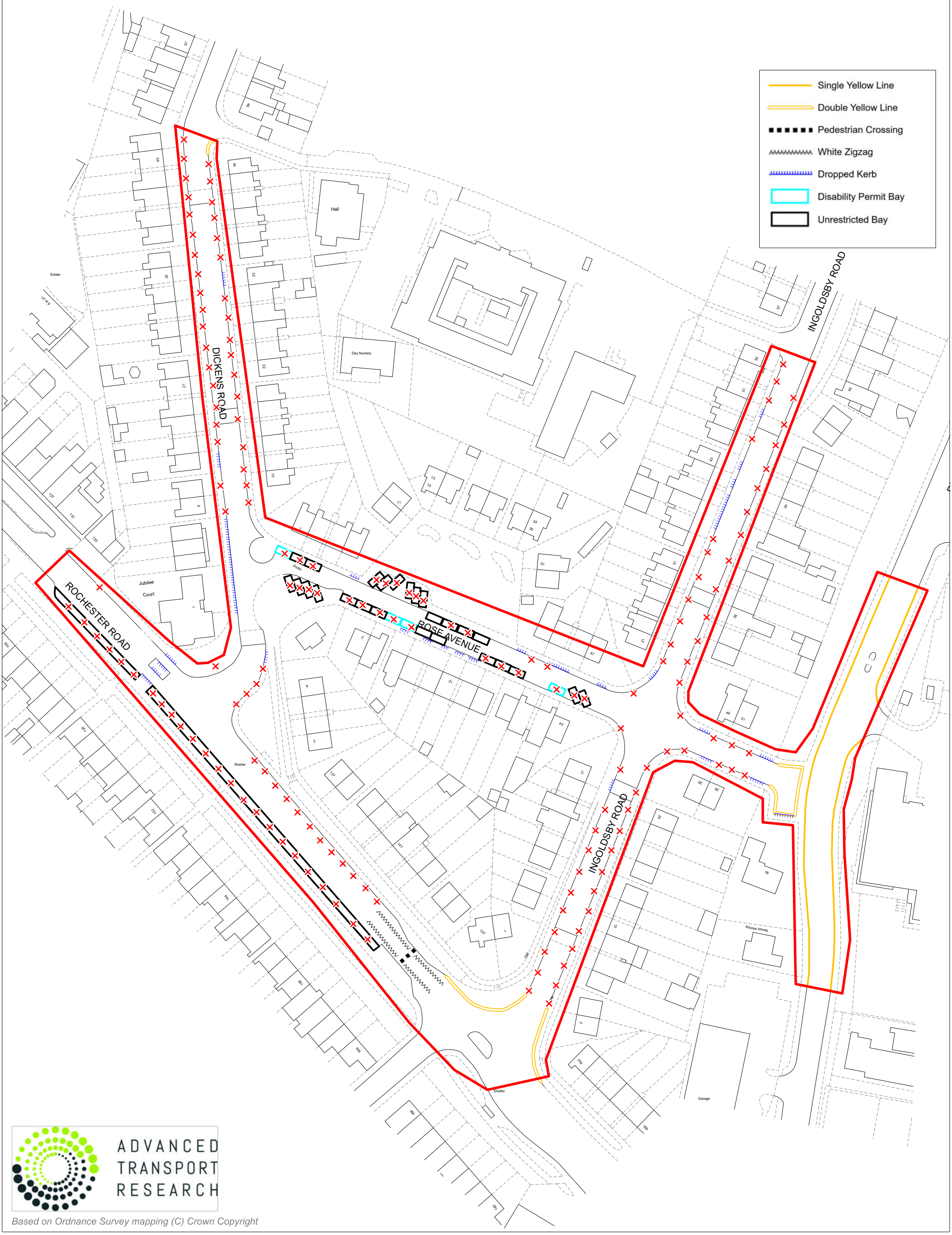
ADVANCED TRANSPORT RESEARCH

Advanced Transport Research	*Job Number & Name:*	**41616 Rose Avenue, Gravesend**
Rose Avenue	*Client:*	**Highway Transport Planning**
Parking Demand	*Date:*	**10th & 11th December 2024**

0100 Tuesday 10th December 2024					**Unrestricted Kerb Space**				**Disabled Permit Bay**				**Unrestricted Bay**				**Single Yellow Line**				**Double Yellow Line**			
Street	**Total Length of Available Kerb Space**	**Length of Junctions**	**Length of Bus stops/other**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**
Rochester Road	423	30	72	139	27	13	**48%**					150	30	24	**80%**					32	6	0	**0%**
Dickens Road	359	20	55	284	56	41	**73%**																
Rose Avenue	372	20	50	126	25	13	**52%**	20	4	4	**100%**	130	26	22	**85%**					26	5	0	**0%**
Ingoldsby Road	446	30	38	352	70	48	**69%**													26	5	0	**0%**
Dering Way	253	10	10													233	46	0	**0%**				
Total per Beat by restriction					178	115	**65%**		4	4	**100%**		56	46	**82%**		46	0	**0%**		16	0	**0%**
Total per Beat					238	165	**69%**																

0100 Wednesday 11th December 2024					**Unrestricted Kerb Space**				**Disabled Permit Bay**				**Unrestricted Bay**				**Single Yellow Line**				**Double Yellow Line**			
Street	**Total Length of Available Kerb Space**	**Length of Junctions**	**Length of Bus stops/other**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**	Length (m)	Calculated Spaces	Cars Parked	**Stress**
Rochester Road	423	30	72	139	27	12	**44%**					150	30	24	**80%**					32	6	0	**0%**
Dickens Road	359	20	55	284	56	40	**71%**																
Rose Avenue	372	20	50	126	25	10	**40%**	20	4	4	**100%**	130	26	18	**69%**					26	5	0	**0%**
Ingoldsby Road	446	30	38	352	70	48	**69%**													26	5	0	**0%**
Dering Way	253	10	10													233	46	0	**0%**				
Total per Beat by restriction					178	110	**62%**		4	4	**100%**		56	42	**75%**		46	0	**0%**		16	0	**0%**
Total per Beat					238	156	**66%**																

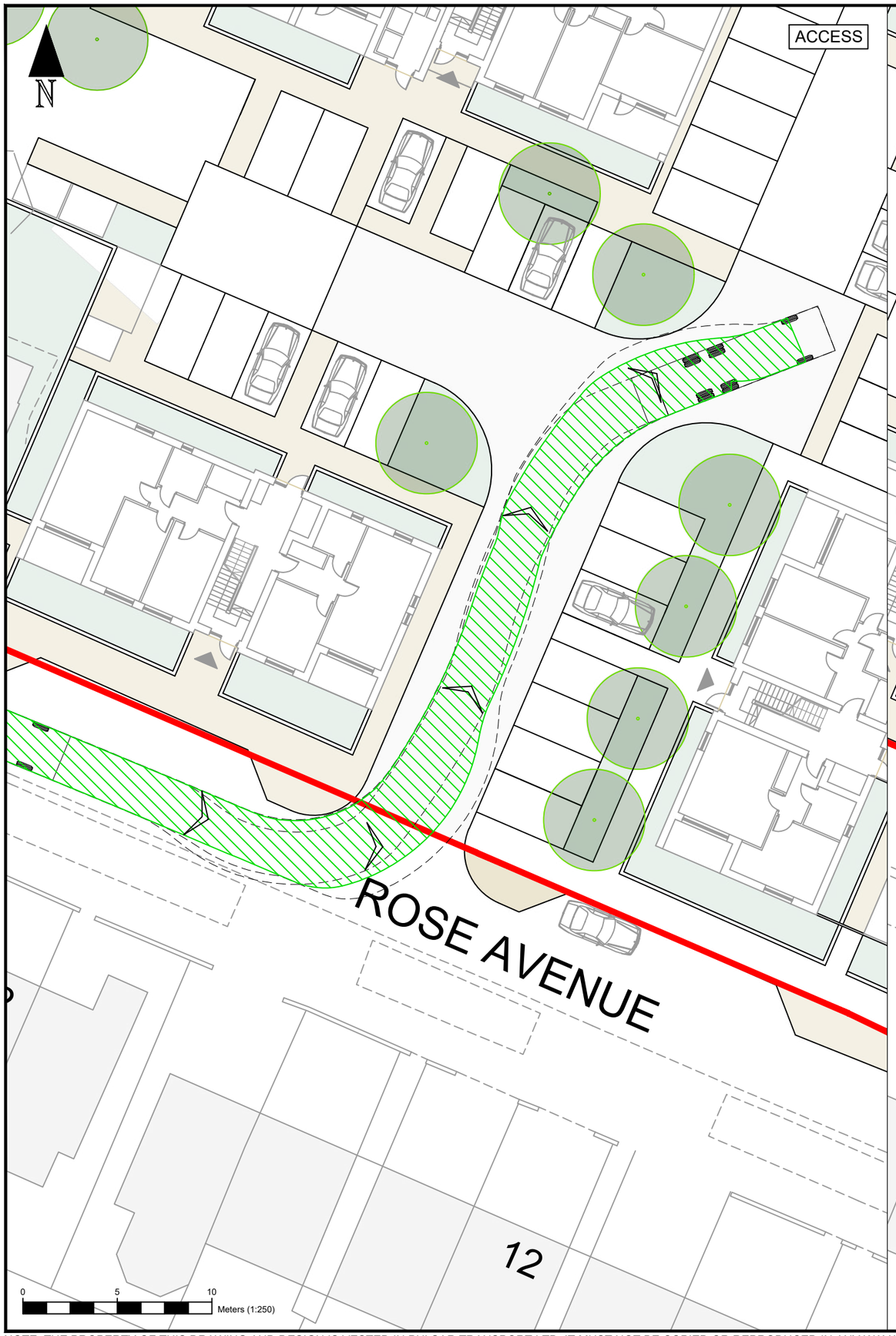
41616 Rose Avenue, Gravesend, DA12 2JY
Parking Beat
0100
Tuesday 10th December 2024

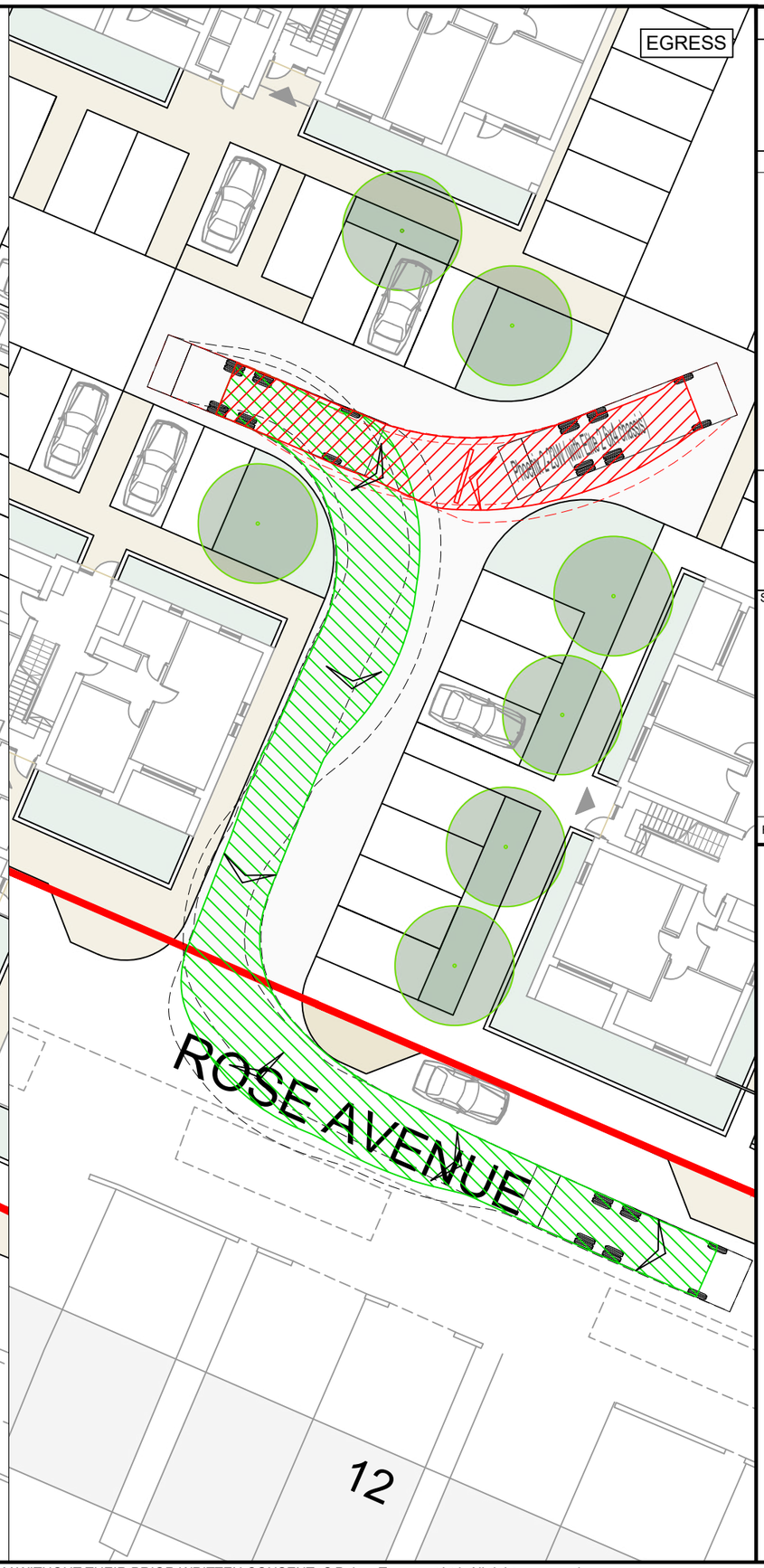


ADVANCED TRANSPORT RESEARCH

Appendix E

Autotrack swept path analysis for refuse vehicle

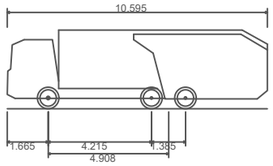




NOTES:

1. Do not scale from this drawing.
2. This drawing to be read & printed in colour.
3. This drawing is for illustrative purposes only, and not for construction.

REFUSE COLLECTION VEHICLE



Phoenix 2-23W (with Elite 2 6x4 chassis)	
Overall Length	10.595m
Overall Width	2.530m
Overall Body Height	3.205m
Min Body Ground Clearance	0.410m
Track Width	2.500m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	9.250m

FORWARD MOVEMENTS *(design speed - 5kph)*

REVERSE MOVEMENTS *(design speed - 2.5kph)*

Solid outline indicates axle/wheels, dashed line indicates vehicle body.

REV	DETAILS	DRAWN	CHECKED	DATE
...	...	...	...	...

CLIENT
Gravesham Borough Council

PROJECT
Rose Avenue, Gravesham

DRAWING TITLE
Swept Path Analysis of Refuse Vehicle

SCALE	SIZE
1:250@A3	A3

DRAWN BY	CHECKED BY	DATE
AEG	KH	12.03.25

PULSAR
Gilmoora House, 57-61 Mortimer Street, London, W1W 8HS
www.pulsartransport.co.uk

PROJECT REF	DWG NO	REV
25046	TR001	...

Appendix F-TRICS trip generation data

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLES

Selected regions and areas:

01 GREATER LONDON
KI KINGSTON 1 days

Main parameter selection:

Parameter: Number of dwellings
Range: 132 to 132 (units:)

Date Range: 01/01/01 to 26/06/01

Selected survey days:
Tuesday 1 days

Selected survey types:
Manual count 1 days
Directional ATC Count 0 days

Selected Locations:
Town Centre 1

Selected Location Sub Categories:
Built-Up Zone 1

LIST OF SITES relevant to selection parameters

1 KI-03-C-01 BLOCKS OF FLATS, KINGSTON KINGSTON
SOPWITH WAY

KINGSTON-UPON-THAMES
Total Number of dwellings: 132
Survey date: TUESDAY 26/06/01 Survey Type: MANUAL

TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

MULTI-MODAL VEHICLES

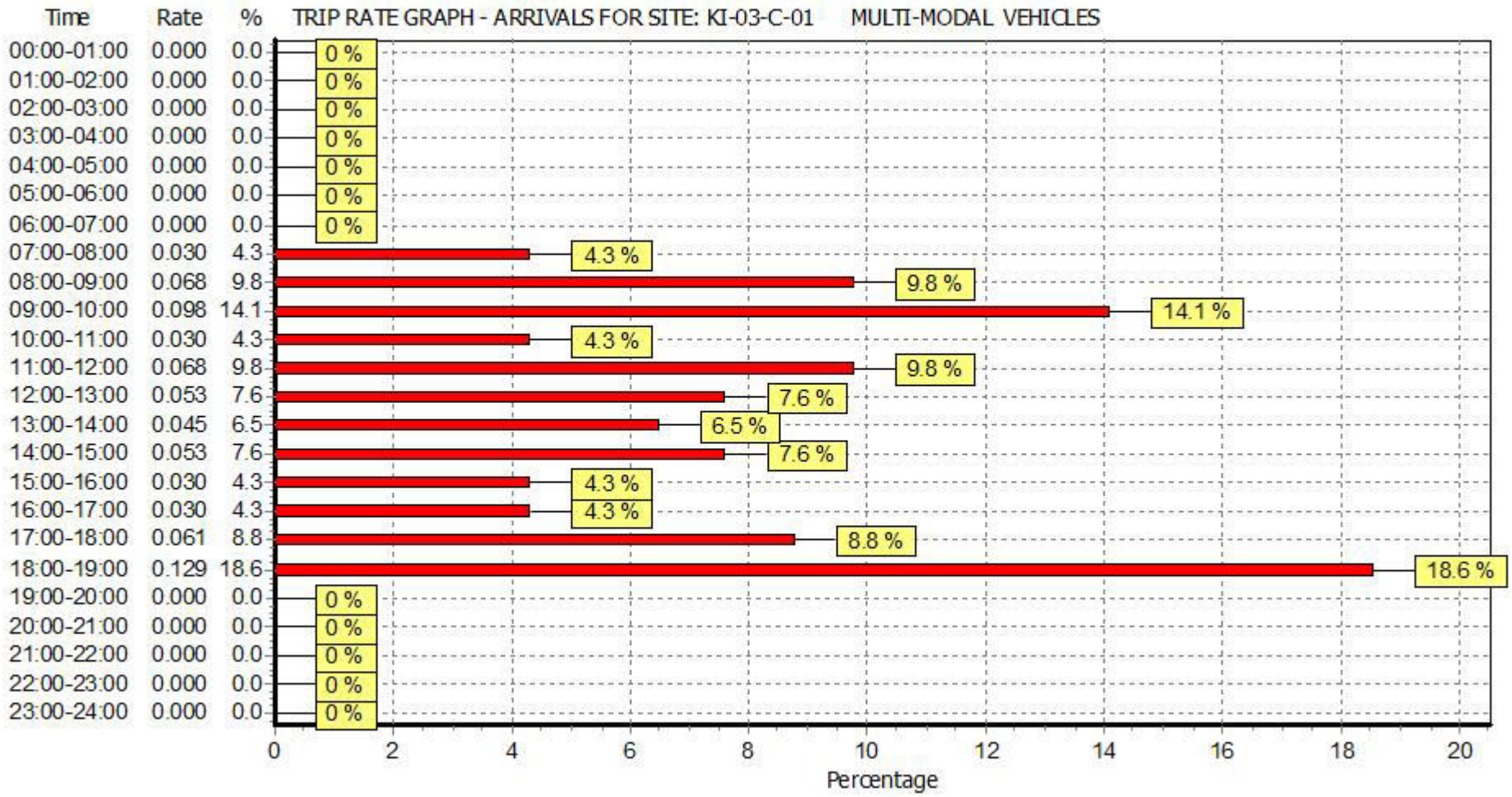
Calculation factor: 1 DWELLS

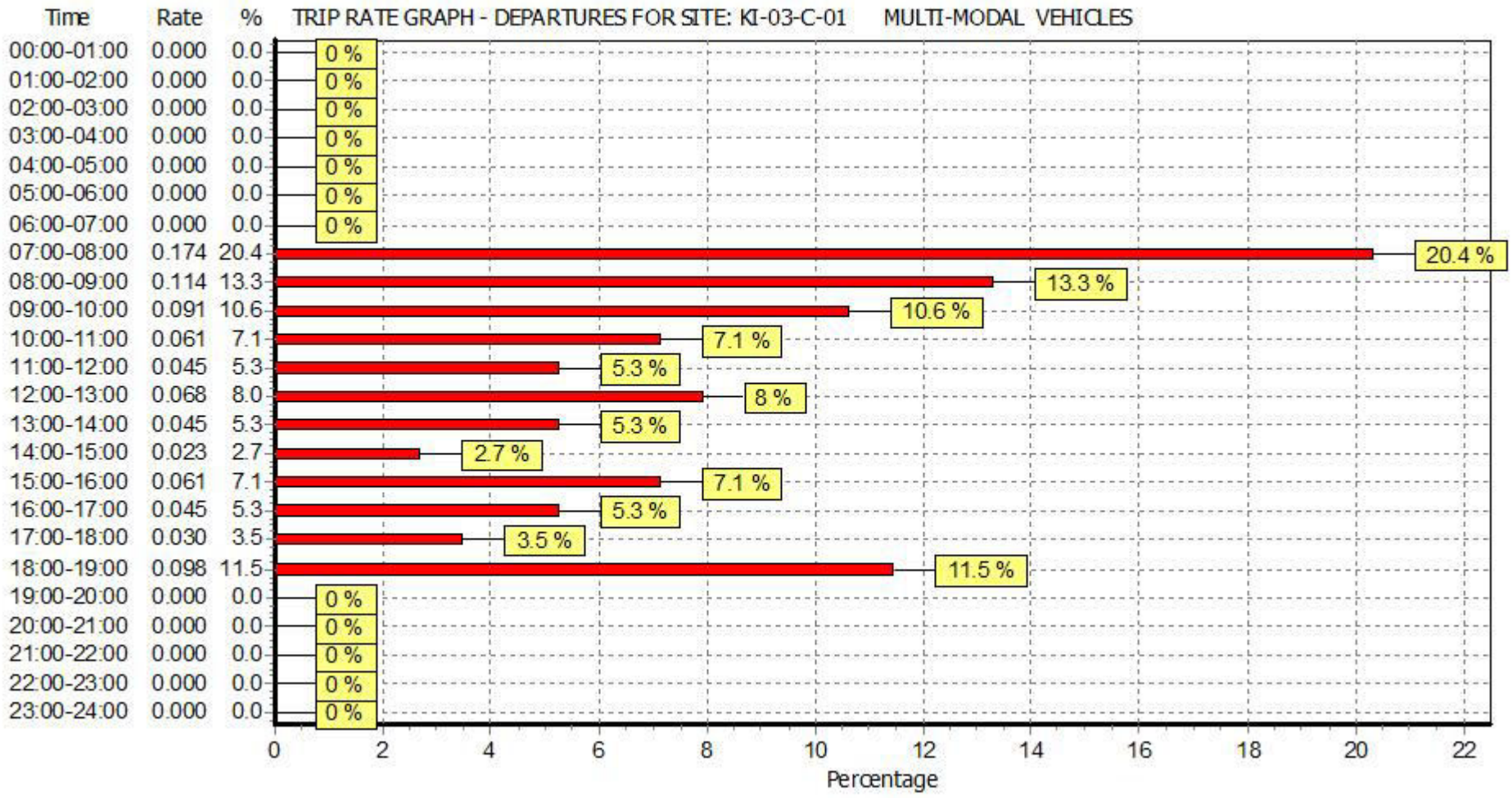
BOLD print indicates peak (busiest) period

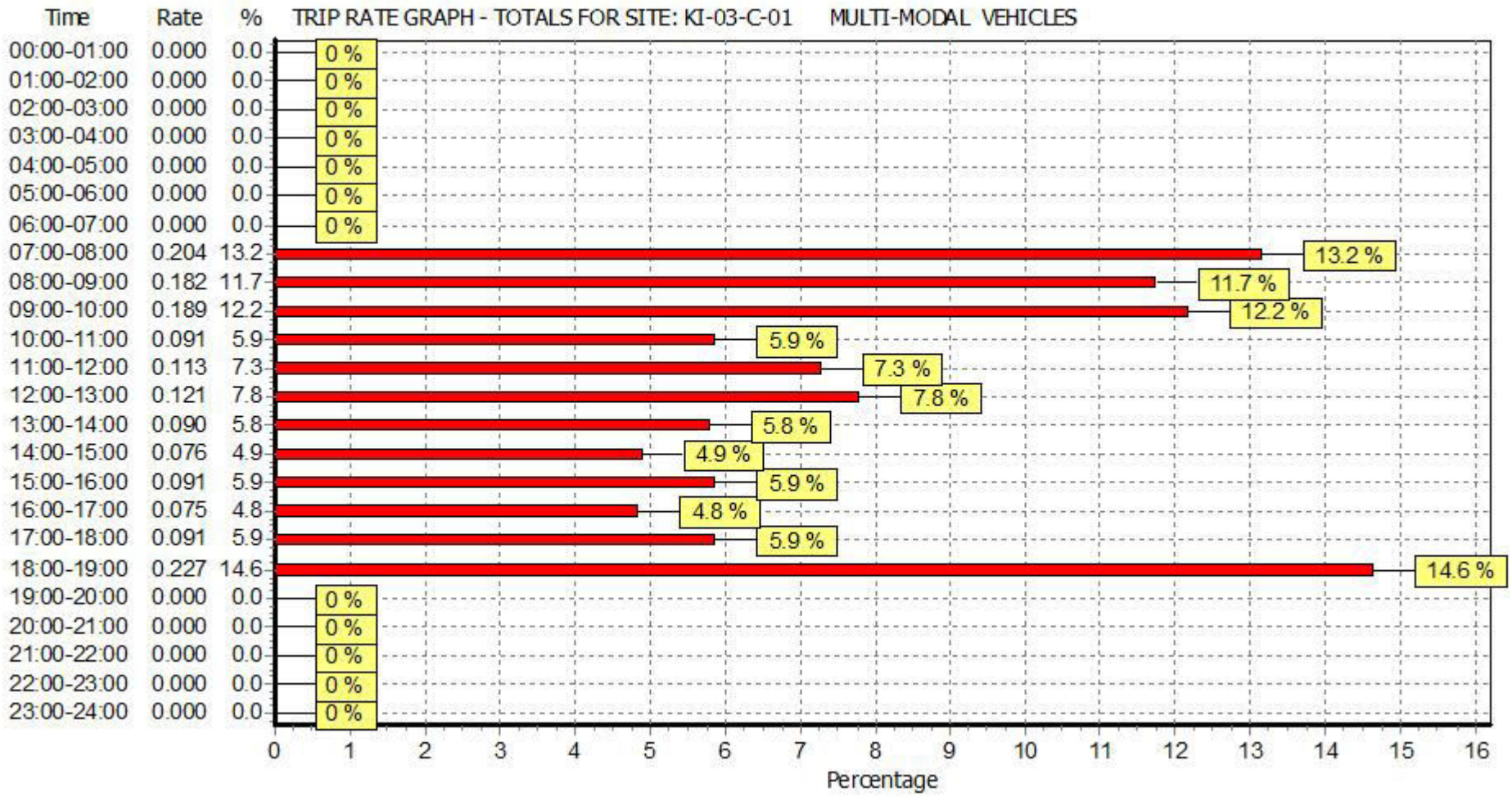
	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00	0	0	0.000	0	0	0.000	0	0	0.000
01:00 - 02:00	0	0	0.000	0	0	0.000	0	0	0.000
02:00 - 03:00	0	0	0.000	0	0	0.000	0	0	0.000
03:00 - 04:00	0	0	0.000	0	0	0.000	0	0	0.000
04:00 - 05:00	0	0	0.000	0	0	0.000	0	0	0.000
05:00 - 06:00	0	0	0.000	0	0	0.000	0	0	0.000
06:00 - 07:00	0	0	0.000	0	0	0.000	0	0	0.000
07:00 - 08:00	1	132	0.030	**1**	**132**	**0.174**	1	132	0.204
08:00 - 09:00	1	132	0.068	1	132	0.114	1	132	0.182
09:00 - 10:00	1	132	0.098	1	132	0.091	1	132	0.189
10:00 - 11:00	1	132	0.030	1	132	0.061	1	132	0.091
11:00 - 12:00	1	132	0.068	1	132	0.045	1	132	0.113
12:00 - 13:00	1	132	0.053	1	132	0.068	1	132	0.121
13:00 - 14:00	1	132	0.045	1	132	0.045	1	132	0.090
14:00 - 15:00	1	132	0.053	1	132	0.023	1	132	0.076
15:00 - 16:00	1	132	0.030	1	132	0.061	1	132	0.091
16:00 - 17:00	1	132	0.030	1	132	0.045	1	132	0.075
17:00 - 18:00	1	132	0.061	1	132	0.030	1	132	0.091
18:00 - 19:00	**1**	**132**	**0.129**	1	132	0.098	**1**	**132**	**0.227**
19:00 - 20:00	0	0	0.000	0	0	0.000	0	0	0.000
20:00 - 21:00	0	0	0.000	0	0	0.000	0	0	0.000
21:00 - 22:00	0	0	0.000	0	0	0.000	0	0	0.000
22:00 - 23:00	0	0	0.000	0	0	0.000	0	0	0.000
23:00 - 24:00	0	0	0.000	0	0	0.000	0	0	0.000
Total Rates:			0.695			0.855			1.550

Parameter summary

Trip rate parameter range selected:	132 - 132 (units:)
Survey date date range:	01/01/01 - 26/06/01
Number of weekdays (Monday-Friday):	1
Number of Saturdays:	0
Number of Sundays:	0
Optional parameters used in selection:	NO
Surveys manually removed from selection:	0


Time
Rate
%
TRIP RATE GRAPH - ARRIVALS FOR SITE: KI-03-C-01 MULTI-MODAL VEHICLES
00:00-01:00 0.000 0.0 0 %
01:00-02:00 0.000 0.0 0 %
02:00-03:00 0.000 0.0 0 %
03:00-04:00 0.000 0.0 0 %
04:00-05:00 0.000 0.0 0 %
05:00-06:00 0.000 0.0 0 %
06:00-07:00 0.000 0.0 0 %
07:00-08:00 0.030 4.3 4.3 %
08:00-09:00 0.068 9.8 9.8 %
09:00-10:00 0.098 14.1 14.1 %
10:00-11:00 0.030 4.3 4.3 %
11:00-12:00 0.068 9.8 9.8 %
12:00-13:00 0.053 7.6 7.6 %
13:00-14:00 0.045 6.5 6.5 %
14:00-15:00 0.053 7.6 7.6 %
15:00-16:00 0.030 4.3 4.3 %
16:00-17:00 0.030 4.3 4.3 %
17:00-18:00 0.061 8.8 8.8 %
18:00-19:00 0.129 18.6 18.6 %
19:00-20:00 0.000 0.0 0 %
20:00-21:00 0.000 0.0 0 %
21:00-22:00 0.000 0.0 0 %
22:00-23:00 0.000 0.0 0 %
23:00-24:00 0.000 0.0 0 %
0
2
4
6
8
10
12
14
16
18
20
Percentage


Time
Rate
%
TRIP RATE GRAPH - DEPARTURES FOR SITE: KI-03-C-01 MULTI-MODAL VEHICLES
00:00-01:00 0.000 0.0
01:00-02:00 0.000 0.0
02:00-03:00 0.000 0.0
03:00-04:00 0.000 0.0
04:00-05:00 0.000 0.0
05:00-06:00 0.000 0.0
06:00-07:00 0.000 0.0
07:00-08:00 0.174 20.4
08:00-09:00 0.114 13.3
09:00-10:00 0.091 10.6
10:00-11:00 0.061 7.1
11:00-12:00 0.045 5.3
12:00-13:00 0.068 8.0
13:00-14:00 0.045 5.3
14:00-15:00 0.023 2.7
15:00-16:00 0.061 7.1
16:00-17:00 0.045 5.3
17:00-18:00 0.030 3.5
18:00-19:00 0.098 11.5
19:00-20:00 0.000 0.0
20:00-21:00 0.000 0.0
21:00-22:00 0.000 0.0
22:00-23:00 0.000 0.0
23:00-24:00 0.000 0.0
0 %
20.4 %
13.3 %
10.6 %
7.1 %
5.3 %
8 %
5.3 %
2.7 %
7.1 %
5.3 %
3.5 %
11.5 %
0
2
4
6
8
10
12
14
16
18
20
22
Percentage


Time
Rate
%
TRIP RATE GRAPH - TOTALS FOR SITE: KI-03-C-01 MULTI-MODAL VEHICLES
00:00-01:00 0.000 0.0
01:00-02:00 0.000 0.0
02:00-03:00 0.000 0.0
03:00-04:00 0.000 0.0
04:00-05:00 0.000 0.0
05:00-06:00 0.000 0.0
06:00-07:00 0.000 0.0
07:00-08:00 0.204 13.2
08:00-09:00 0.182 11.7
09:00-10:00 0.189 12.2
10:00-11:00 0.091 5.9
11:00-12:00 0.113 7.3
12:00-13:00 0.121 7.8
13:00-14:00 0.090 5.8
14:00-15:00 0.076 4.9
15:00-16:00 0.091 5.9
16:00-17:00 0.075 4.8
17:00-18:00 0.091 5.9
18:00-19:00 0.227 14.6
19:00-20:00 0.000 0.0
20:00-21:00 0.000 0.0
21:00-22:00 0.000 0.0
22:00-23:00 0.000 0.0
23:00-24:00 0.000 0.0
0 %
13.2 %
11.7 %
12.2 %
5.9 %
7.3 %
7.8 %
5.8 %
4.9 %
5.9 %
4.8 %
5.9 %
14.6 %
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Percentage