AECOM

National survey of lorry parking 2022 – Part one

Report for the March 2022 national overnight audit

Department for Transport

Project Number: 60676263

September 2022

Delivering a better world

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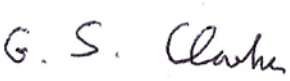

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Revision history

Revision	Revision Date	Name	Position
Revision 01	25/05/2022	Scott Millard	Senior Consultant
Revision 02	17/06/2022	Sonia Hayward	Associate Director
Revision 03	29/07/2022	Sonia Hayward	Associate Director
Revision 04	17/08/2022	Sonia Hayward	Associate Director
Revision 05	25/08/2022	Sonia Hayward	Associate Director
Revision 06	07/09/2022	Sonia Hayward/Maria Mirabelli	Associate Director/Senior Project Specialist

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Glossary

Terminology	Description
On-site parking	Includes ■ Independent truckstops ■ Local authority truckstops ■ Motorway service areas (MSAs) ■ Trunk road service areas (TRSAs)
Off-site parking	Includes ■ Industrial estates ■ Laybys
On-site parking facility/locations	Refers to provision of dedicated lorry parking at the above four types of on-site parking facilities
Off-site parking locations	Refers to lorries parking at the above two types of off-site parking locations

Acronyms

Aeronautical reconnaissance coverage Geographic information system ____ ArcGIS
Criminal investigation department _____ CID
Delivering a better service to freight _____ DABS
Department for Transport _____ DfT
Daventry international rail freight terminal _____ DIRFT
Environmental sensitivities research institute _____ ESRI
Global positioning system _____ GPS
Kent county council _____ KCC
Motorway service area_____ MSA
National Highways _____ NH
National planning policy framework _____ NPPF
National vehicle crime Intelligence service _____ NaVCIS
Strategic road network _____ SRN
Transported asset protection association _____ TAPA
Trunk road service area_____ TRSA
Twenty-foot equivalent unit _____ TEU

Executive summary

The Department for Transport (DfT) commissioned AECOM to undertake an audit of lorry parking within five kilometres of the strategic road network (SRN) in England. The study aims to help DfT and other public bodies understand user experience to inform and provide an evidence base for policy development on HGV parking and welfare needs of drivers. The 2022 lorry parking research study supports the DfT in its bid to produce an accurate assessment of lorry parking provision and demand.

The night audits were undertaken at on-site and off-site parking locations:

- **On-site parking facilities**
  - Independent truckstops
  - Local authority truckstops
  - Motorway service areas (MSAs)
  - Trunk road service areas (TRSAs)
- **Off-site parking locations**
  - Industrial estates
  - Laybys

Headline figures

During the March 2022 national programme of night audits, a total of 21,234 vehicles were recorded parked within five kilometres of the SRN in England. 328 on-site parking facilities were recorded, and 4,068 off-site parking locations were recorded. Although the number of on-site parking locations is much smaller, it is where 65 per cent of all parked vehicles were observed.

With a total of 21,234 vehicles observed at on-site and off-site parking facilities, and an on-site capacity of 16,761, there is an excess of 4,473 vehicles against on-site capacity.

A total of 15,583 UK-registered vehicles (73 per cent) and 5,651 non-UK registered vehicles (27 per cent) were observed.

The provision of lorry parking at on-site facilities is nearly at critical level, having reached 83 per cent utilisation level across the network, with the highest utilisation rates found in the following regions:

- East of England at 95 per cent
- South east at 94 per cent
- East Midlands at 92 per cent

All three of these regions are over 85 per cent, the critical level of utilisation agreed by the DfT in previous national audits, and above the national utilisation level of 83 per cent.

Figure E1: Summary of 2017 and 2022 national audits

All vehicles observed	(2017)	2022	% change
Truckstops	(11,469)	13,916	21%
Laybys	(4,709)	4,157	-12%
Industrial estates	(2,492)	3,161	27%
Total off-site	(7,201)	7,318	2%
Total	(18,670)	21,234	14%
% of total parking off-site	(39%)	35%	--

Sites	(2017)	2022	% change
Truckstops	(311)	328	5%
Laybys	(3,397)	3,241	-5%
Industrial estates	(801)	827	3%
Total	(4,509)	4,396	-3%

Capacity	(2017)	2022	% change
Truckstop (all) capacity	(15,012)	16,761	12%
Utilisation of this capacity	(76%)	83%	--

Foreign vehicles observed	(2017)	2022	% change
Truckstops	(2,862)	4,516	58%
Laybys	(1,207)	710	-41%
Industrial estates	(536)	425	-21%
Total foreign	(4,605)	5,651	21%
% foreign	(25%)	27%	--

UK / foreign comparison	(2017)	2022	% change
Total UK vehicles	(14,015)	15,583	11%
Total foreign vehicles	(4,605)	5,651	21%
Overall total	(18,670)	21,234	14%

Methodology

As in the previous 2010 and 2017 studies, and using the same methodology, AECOM undertook a national programme of night audits within five kilometres of the SRN in England. The purpose of the study was primarily to determine and map the number, type, and capacity at on-site parking facilities, determine and map the utilisation at on-site parking facilities, and determine and map the extent of other indicators of demand (i.e. lorries parked at off-site locations) so that the national parking capacity for lorries for 2022 could be established.

As with the previous studies, the month of March was chosen as this is an 'average' month in terms of freight movement activity and allows for direct comparison of overnight utilisation with previous audits. There is a parallel piece of work underway (longitudinal audits) to better understand how levels of lorry parking fluctuate throughout the year and if there are regional differences in seasonal fluctuations. The longitudinal audits are undertaken on specific routes within four defined regions and the results will be reported separately when the audits for these complete in February 2023. This report is based on data from the March 2022 overnight audits.

Extensive desktop research was carried out based on the data from the previous 'DfT Lorry Parking Study (2017)'. This research helped create the platform from which to launch the physical site audits at existing sites and any newly identified ones. The March night audits were undertaken on Mondays, Tuesdays, Wednesdays, and Thursdays between the hours of 6.00pm and 2.00am. Following detailed briefings about the task and familiarisation with the formal safety, health, and environment (SHE) plan, which included a full risk assessment and a communications plan, teams of two auditors travelling in one car on pre-arranged routes conducted each nightly audit.

As in 2010 and 2017, the country was split into nine separate regions, in line with the nine administrative regions from The Government Offices for the English Region, as listed below, and shown at Figure E2:

- East Midlands
- East of England
- London
- North East
- North West
- South East
- South West
- West Midlands
- Yorkshire and the Humber

Figure E2: Map from the Government Offices for the English Regions showing the nine regions

Auditors collected data using a mobile application 'ArcGIS Field Maps' ("the app"). This is a cloud-based mapping platform designed by ESRI. The revised database formed during the desktop research phase was imported into the app and the GPS coordinates were used to pinpoint each of the lorry parking sites on a map (Figure E3). Data collected includes number of spaces, number of parked vehicles observed and split of UK/non-UK, information on driver welfare (e.g. toilets/showers etc), and vehicle support (e.g. filling station, charge points etc).

Figure E3: View of all on-site and off-site parking locations on the app

National lorry parking audit results

On-site and off-site parking locations audited

A total of 4,396 on-site and off-site lorry parking locations were audited. The total includes 328 on-site facilities, 827 industrial estates, and 3,241 laybys (Figure E4). Whilst on-site locations form only seven per cent of the total number of locations audited, they provide the on-site facilities that support essential driver welfare and ultimately safety. A breakdown by type of on-site facilities is provided at Figure E5.

Figure E4: Number of on-site and off-site parking locations by type

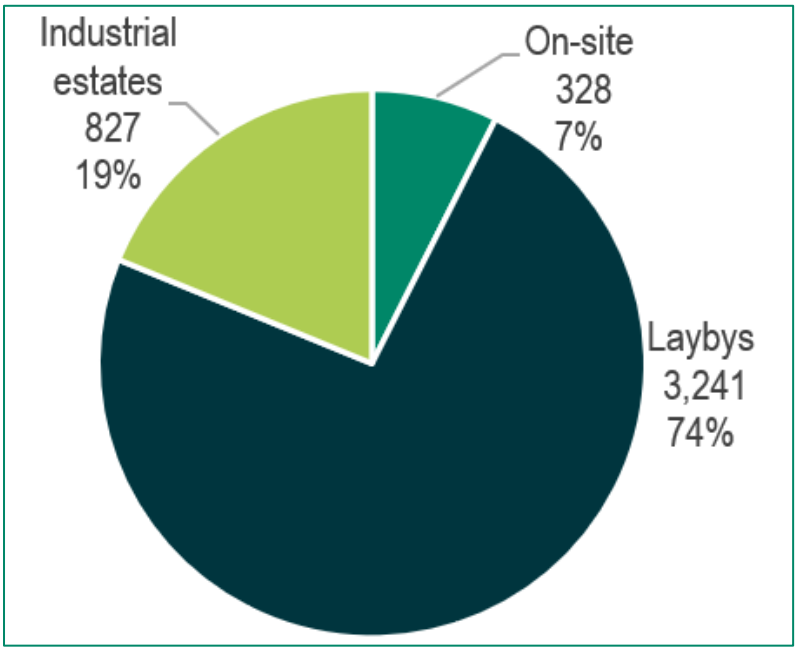
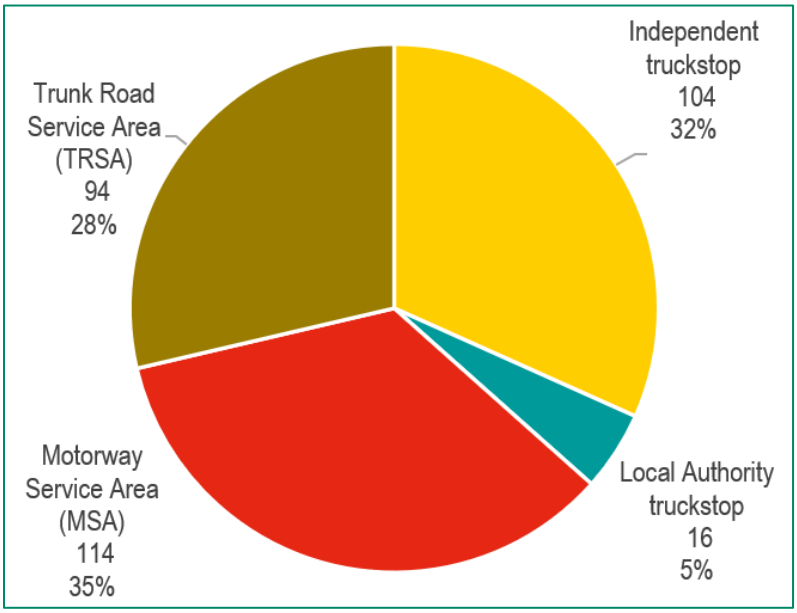


Figure E5: Number of on-site parking facilities by type



Capacity at on-site and off-site parking locations

The total on-site parking capacity observed during the night audits in March 2022 was recorded at 16,761 (Figure E6). There is no capacity for industrial estates that can be recorded, nor for laybys, although some auditors did estimate the capacity of just over a quarter of the laybys. This is not included in this figure as laybys are considered off-site parking.

Of the 16,761 on-site lorry parking capacity, the greatest number of spaces can be found at independent truckstops with 7,390 spaces, followed closely by MSAs with 6,688 spaces, representing a combined parking capacity of 84 per cent of the total (Figure E7).

Figure E6: Total on-site capacity

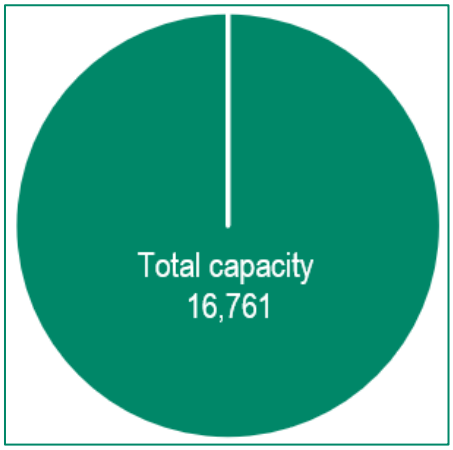
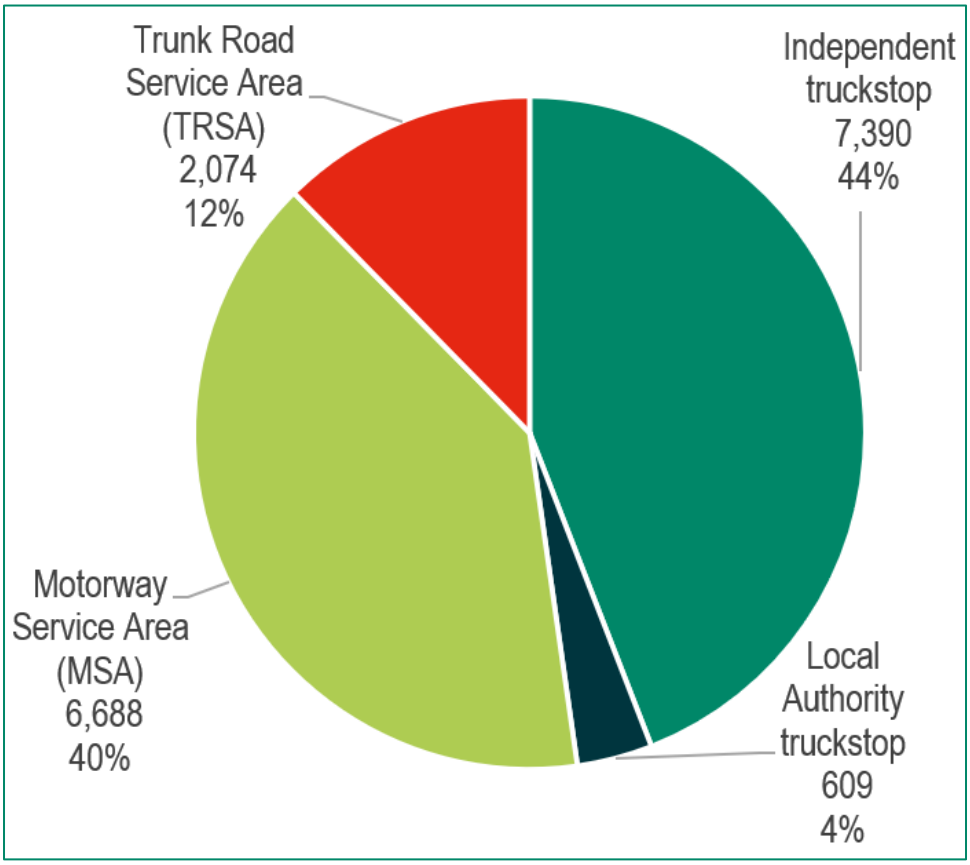


Figure E7: Total capacity by on-site type



Vehicles observed at on-site and off-site parking locations

21,234 vehicles were observed across all on-site and off-site locations audited - vehicles observed refers to lorries parked in marked and non-marked bays in the vicinity of a site (e.g. slip road to an MSA).

13,916 vehicles were observed at on-site parking facilities (Figure E8), representing 65 per cent of all vehicles observed. A further 3,161 vehicles were recorded in industrial estates and 4,157 in laybys, representing a combined 35 per cent of all vehicles.

The total of 13,916 vehicles recorded at on-site facilities includes 6,284 vehicles at independent truckstops - the highest number of vehicles - followed closely by MSAs with 5,630 vehicles, representing a combined 86 per cent of all vehicles (Figure E9).

Figure E8: Vehicles observed by parking site

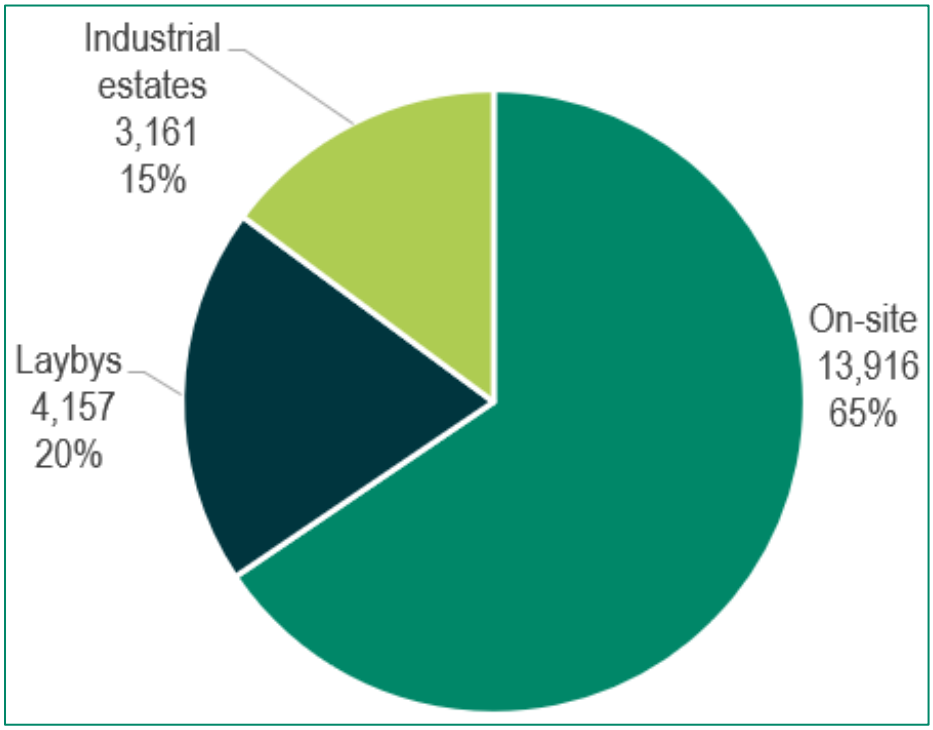
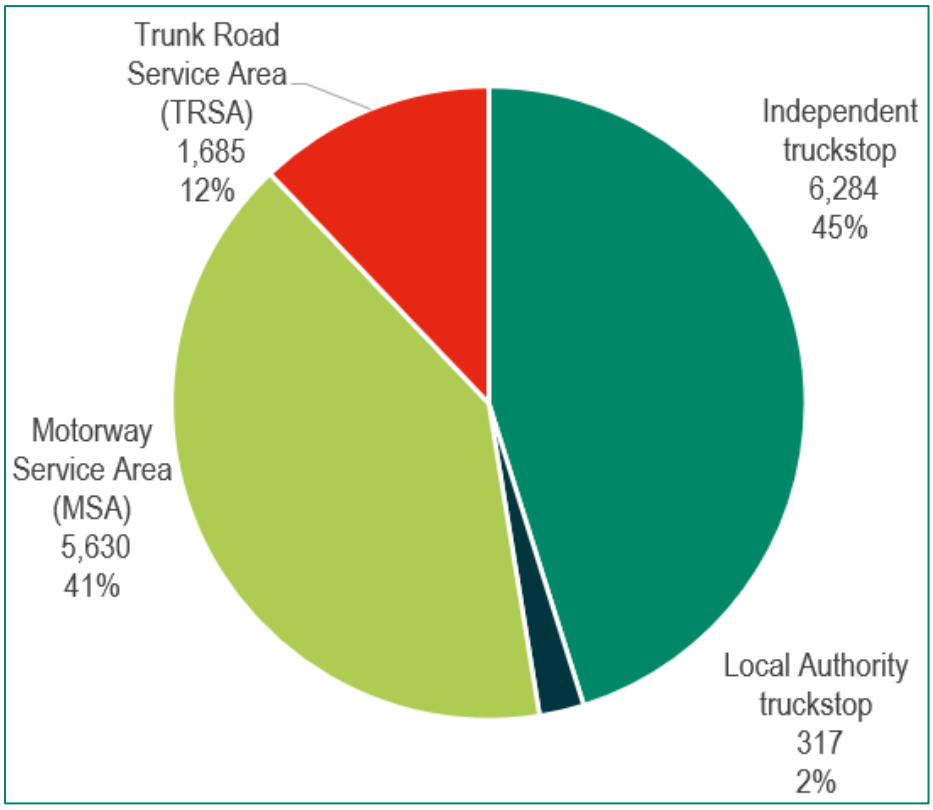


Figure E9: Vehicles observed on-site by type of parking facilities



UK v non-UK registered vehicles observed

Vehicles observed were recorded as either UK registered or non-UK registered. The distinction of the vehicle is based on the country identifier marked on the vehicles.

15,583 UK registered vehicles (73 per cent) were recorded against 5,651 non-UK registered vehicles (27 per cent) (Figure E10).

Figure E10: Split of UK and non-UK registered vehicles by site type

		UK/Non-UK registered vehicles		
		UK	Non-UK	All vehicles
Number of vehicles (%) by site type and registration	All on-site facilities	9,400 (68%)	4,516 (32%)	13,916 (100%)
	Off-site - laybys	3,447 (83%)	710 (17%)	4,157 (100%)
	Off-site – ind est	2,736 (87%)	425 (13%)	3,161 (100%)
	All sites	15,583 (73%)	5,651 (27%)	21,234 (100%)

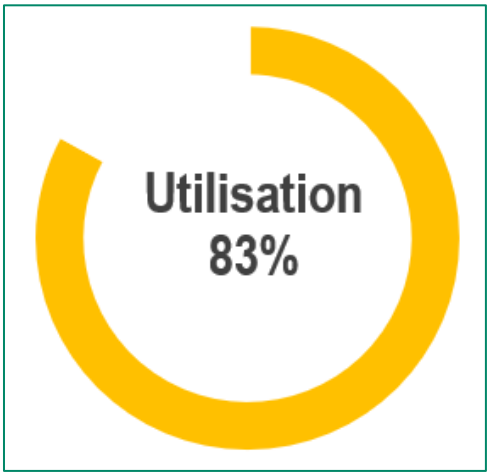
Utilisation

The system agreed with the DfT in the 2017 study to categorise the utilisation of on-site facilities has been used again for this study to help understand and compare the utilisation levels (Table E1). Based on this approved categorisation, the 2022 study demonstrates that the utilisation levels across all on-site parking facilities on the SRN is reaching the critical level of 85 per cent across the whole of England, with an overall utilisation level of 83 per cent (Figure E11).

Table E1: Utilisation categorisation

Description	Utilisation
Critical	Greater than or equal to 85%
Serious	70% to 84% full
Acceptable	Less than or equal to 69% full

Figure E11: On-site utilisation



This translates into 143 on-site parking facilities being at critical level, meaning almost 44 per cent of on-site parking facilities are at critical level across England. A further 45 sites are at serious level, and 138 at acceptable level. Of the sites that are at a critical level, 100 sites have a utilisation of 100 per cent or more.

On-site and off-site parking charges recorded

The mean average charge at MSAs is £28.16. This is higher than the mean average charge at independent truckstops (£21.36). Local authority truckstops have the lowest mean average (£11.67) out of all on-site parking facilities. The average charge of non-MSA parking facilities is £19.16. Therefore, on average, it costs £9 more to park at an MSA compared with a non-MSA parking facility.

On-site parking facilities ratings

There is a wide variety of standards of on-site parking facilities across the nine regions based on the rating system devised for the previous studies where 5 is excellent and 0 is basic. The most common rating for each of the four types of on-site parking facilities are: independent truckstops rated as a 4 (31 per cent), MSAs a 3 (67 per cent), TRSAs a 2 (52 per cent), and local authority truckstops a 0 (50 per cent).

2017 v 2022 national lorry parking audit comparison

On-site and off-site parking locations

Since the previous study in 2017, the total number of on-site parking facilities has increased from 311 to 328. This represents an increase of five per cent from 2017 (Table E2). The net change is due to sites closing and others opening. The data also shows a five per cent decrease in the number of laybys (3,397 to 3,241) but a three per

cent increase in industrial estates (801 to 827). Some of the existing sites have been repurposed because of changes to road infrastructure with new sites opening with the increasing demand for warehousing.

Table E2: Number of on-site and off-site parking locations 2017 v 2022

Sites	2017	2022	Change
On-site facilities	311	328	5%
Laybys	3,397	3,241	-5%
Industrial estates	801	827	3%

Vehicles observed at on-site and off-site parking locations

The total number of vehicles observed overnight across all on-site and off-site parking locations has increased by 14 per cent between 2017 and 2022. The number of these vehicles parked on-site has increased from 11,469 to 13,916 between 2017 and 2022 (Table E3). This represents a 21 per cent increase in the use of on-site parking facilities for overnight parking. There was a two per cent change in vehicles observed off-site, increasing from 7,201 vehicles in 2017 to 7,318 in 2022.

Table E3: Vehicles observed 2017 v 2022

Vehicles observed	2017	2022	% change
Total on-site	11,469	13,916	21%
Laybys (off-site)	4,709	4,157	-12%
Industrial estates (off-site)	2,492	3,161	27%
Total off-site	7,201	7,318	2%
Total on-site and off-site	18,670	21,234	14%
Percentage of total parking off-site	39%	34%	--

The number of non-UK registered vehicles has increased by 21 per cent from 2017 (Table E4), compared to an 11 per cent increase in UK registered vehicles.

Table E4: Vehicles observed UK v non-UK registered 2017 v 2022

UK / non-UK comparison	2017	2022	% change
Total UK registered vehicles	14,015	15,583	11%
Total non-UK registered vehicles	4,655	5,651	21%
Overall total	18,670	21,234	14%

Capacity and utilisation at on-site and off-site parking locations

The total lorry parking capacity of all on-site parking facilities has increased from 15,012 to 16,761 – this represents an increase of 12 per cent (Table E5). The capacity increase is attributed in part to the net change of 17 on-site parking facilities which were recorded this time and in part to the additional spaces added to existing sites, such as Ashford Truckstop.

Table E5: Capacity and utilisation comparison 2017 v 2022

Capacity	2017	2022	% change
On-site capacity	15,012	16,761	12%
Utilisation of this capacity	76%	83%	--

However, overall utilisation has increased from 76 per cent in 2017 to 83 per cent in 2022. This shows more vehicles being observed throughout the audits and greater use of on-site facilities. The concern is that the national picture of utilisation for on-site parking is very close to the 85 per cent critical utilisation level meaning that on-site parking facilities are close to operating at full capacity. The number of sites which are 100 per cent utilised or more in 2022 totalled 100, compared to 2017 when there were 65 sites at 100 per cent full or more, which represents a 54 per cent increase in sites utilised at 100 per cent or more over the five years.

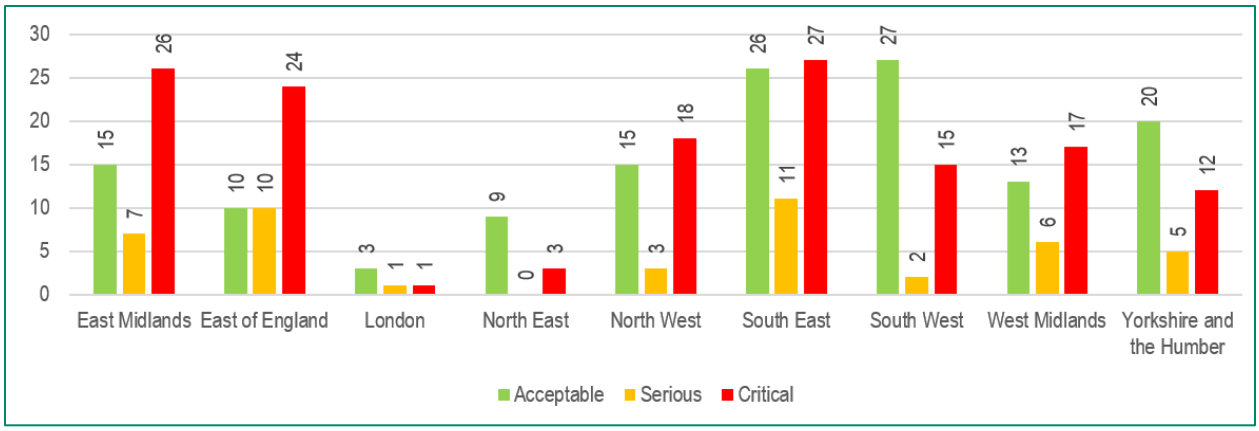
To understand the shortfall in on-site parking capacity, a comparison is made between the total on-site parking capacity (16,761) and all the vehicles observed at all on-site and off-site parking locations (21,164). The theoretical calculation is that if all vehicles were to be parked in on-site facilities, there is a 27 per cent shortfall in the number of on-site parking spaces to accommodate all the vehicles observed. This is slightly worse than in 2017, when the shortfall was 24 per cent (on-site parking capacity at 15,012 and all vehicles observed at 18,670). This shows that although new capacity has come on stream over the past five years, demand has grown at a faster pace.

Regional overview

All regions have on-site parking facilities that are at critical utilisation level, as previously defined, i.e. with utilisation levels 85 per cent or above. The East of England stands out with only 10 sites at acceptable utilisation levels, with the remainder of sites at serious (10) or critical (24) utilisation levels. The South East has 27 sites at critical utilisation level, 11 sites at serious utilisation level, and 26 sites at acceptable utilisation levels (Figure E12). Although having sites with an acceptable utilisation level in a busy region like the South East suggests that theoretically there should not be a problem, more detailed analysis shows that this “spare capacity” is not necessarily in the place where it

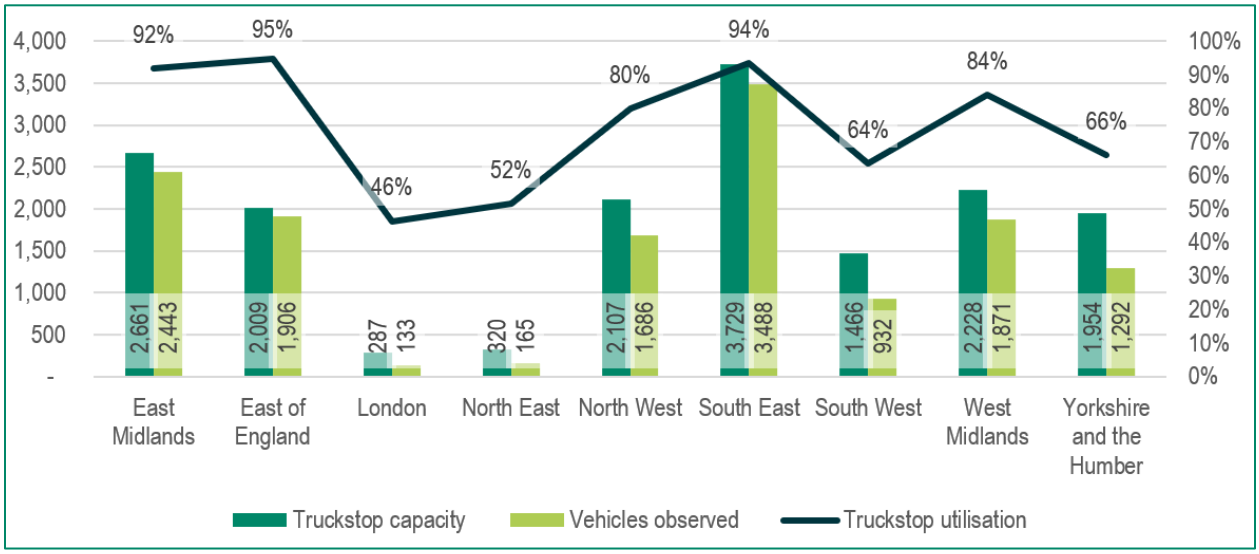
is needed. The spare capacity is on or near the M4 and the north western part of the South East rather than being in Kent where it is most needed. In terms of travel time, it is also too far to be considered by a driver in Kent looking for a space.

Figure E12: Number of on-site parking facilities by site utilisation category by region



The East of England is at critical utilisation level across all on-site parking facilities, ranging from 92 to 100 per cent utilised (Figure E13).

Figure E13: On-site capacity vs vehicles observed vs on-site utilisation by region



Industry and stakeholder engagement

The engagement work of the study included an online driver survey which ran from Tuesday 10 May to Thursday 30 June 2022, as well as a face-to-face focus group at Lymm truckstop on Wednesday 18 May 2022 with 10 drivers, and an online stakeholder engagement group on Thursday 16 June 2022. This work provides an insight into the issues that are important to drivers, as well as an insight into the difficulties faced by operators of on-site parking facilities and the changes deemed necessary by both parties to improve driver welfare.

Driver survey

An online driver survey was developed to gauge lorry drivers' views on different aspects of parking and welfare. The online survey was completed by a total of 364 lorry drivers.

When asked where they prefer to park when away from base, 54 per cent of the drivers (197) responded that they prefer to park in a designated truckstop/MSA that charges parking fees. 24 per cent of drivers stated that they prefer to park in industrial estates and laybys, which is a higher percentage than for free lorry parking near facilities (e.g. roadside service area) with 19 per cent of drivers selecting this option.

Well maintained toilets and showers seems to be the key feature of an on-site facility with a charge for the respondents, with 99 per cent of drivers selecting this as very important (91 per cent) or quite important (8 per cent).

All security-related features such as CCTV, security staff, and security fencing were selected as being very important or quite important, with a combined very important/quite important percentage of 96 per cent, 95 per cent, and 94 per cent respectively.

Driver focus group

The purpose of the focus group was to expand on the topics raised in the driver survey and explore drivers' opinions about overnight lorry parking. Respondents were asked what they thought defined a good on-site parking facility and they mentioned the following range of features:

- Showers (e.g. multiple working facilities, clean)
- Good food (e.g. range of options available, not just fast food options)
- Available spaces to park
- Social spaces (e.g. areas to sit, comfort areas)
- Cost of parking (e.g. reasonable value for money for facilities available)

It was apparent that one of the biggest concerns from drivers is the lack of parking spaces available as it makes it very difficult for drivers to plan ahead where to park as part of their journey. It was generally felt that on-site parking facilities often represented poor value for money and there was a preference for independent sites over MSAs. There was a strong feeling within the group that European facilities were good (even basic ones) and the UK ones are poor in comparison.

Stakeholder engagement

Key stakeholders attended an online workshop on Thursday 16 June 2022, with representatives from a number of organisations, including operators of on-site parking facilities, trade associations, NH, DfT, the National Vehicle Crime Intelligence Service (NaVCIS), and property/land agents.

The group explored the barriers to improving and increasing on-site parking facilities. Using an anonymous engagement app, the most popular answer to come out of the word cloud was ‘planning’ and other related words, such as ‘planning approval’, ‘planning regs’, and ‘local planning authority’. ‘Cost’, ‘local authorities’ and ‘green belt’ were also key words or phrases to be mentioned by more than one stakeholder within the word cloud.

When asked about the key aspect of an on-site parking facility, ‘security’, ‘secure’ and ‘safe’ were three words inputted by a number of the stakeholders during the meeting showing that safety/security is the main aspect that needs to be considered in a lorry parking standard. In addition, ‘clean’ was the next most popular word inputted, as well as ‘driver facilities’.

‘Easier planning’ was the main phrase to come out of the word cloud in response to what the solutions might be, along with ‘funding’, ‘planning policy’, and ‘clear policy’. A number of times on the call, representatives from operators mentioned how policy and approvals are sometimes holding back the development of new sites/better facilities and that this needed to be reviewed.

Study observations

The 2022 study highlights that there remains a shortfall in the provision of on-site parking facilities, with 21,234 vehicles observed at on-site and off-site parking facilities within five kilometres of the SRN in England against an on-site capacity of 16,761, translating into a recorded excess of 4,473 vehicles against capacity.

There are a range of macro and micro factors that have affected the demand for lorry parking spaces and although the relative influence of these factors is uncertain, the overall net effect over the last five years is that the demand for lorry parking spaces has

grown faster than the supply of additional spaces. Work on optimising the existing lorry parking spaces at MSAs by using coach and car parking areas during the evenings/nights could alleviate some of the immediate concerns around lorry parking capacity. Similarly, work in understanding the overnight parking needs of the non-UK and van driver population could provide an insight into how best to manage lorry parking capacity.

It is clear from the engagement part of the study that poor quality facilities at parking locations, sub-standard security, and the cost of parking are all areas of great concern for the drivers.

1. Introduction

The Department for Transport (DfT) commissioned AECOM to undertake an audit of lorry parking. The study aims to help DfT and other public bodies understand user experience to inform and provide an evidence base for policy development on HGV parking and welfare needs of drivers. Based on the methodology detailed in Section 2, this work replicates and builds on previous DfT studies carried out in 2010 and 2017.

As in the previous 2010 and 2017 studies, AECOM undertook a national programme of night audits within five kilometres of the SRN. As on previous occasions, the month of March was chosen as this is an 'average' month in terms of freight movement activity, and hence it allows for direct comparison of overnight utilisation with previous audits. There is a parallel piece of work underway (longitudinal audits) to better understand how levels of lorry parking fluctuate throughout the year and if there are regional differences in seasonal fluctuations. The longitudinal audits are undertaken on specific routes within four defined regions where the same sites are audited at every visit, and a methodology will be applied to provide as accurate a national picture as possible. The results will be reported separately when the audits for these complete in February 2023. Before the audits could commence, some desktop research was conducted to update the database and improvements were made to our electronic data collection tool.

AECOM undertook overnight audits at on-site and off-site parking locations. On-site parking includes four types of facilities, off-site includes two types of locations:

- **On-site parking facilities**
  - Independent truckstops
  - Local authority truckstops
  - Motorway service areas (MSAs)
  - Trunk road service areas (TRSAs)
- **Off-site parking locations**
  - Industrial estates
  - Laybys

The four types of on-site parking facilities are defined at Appendix A.

This interim report provides the DfT with the national and regional findings (Sections 3 and 5 respectively) and includes a comparison with the 2017 data (Section 4). Section 6 provides a detailed report on the industry engagement undertaken in May 2022, as well as information from industry engagement undertaken by way of a survey, and stakeholder engagement held in June 2022.

Where percentages do not sum to 100 per cent in the main body of the report, this is due to rounding.

2. Methodology

2.1 Introduction

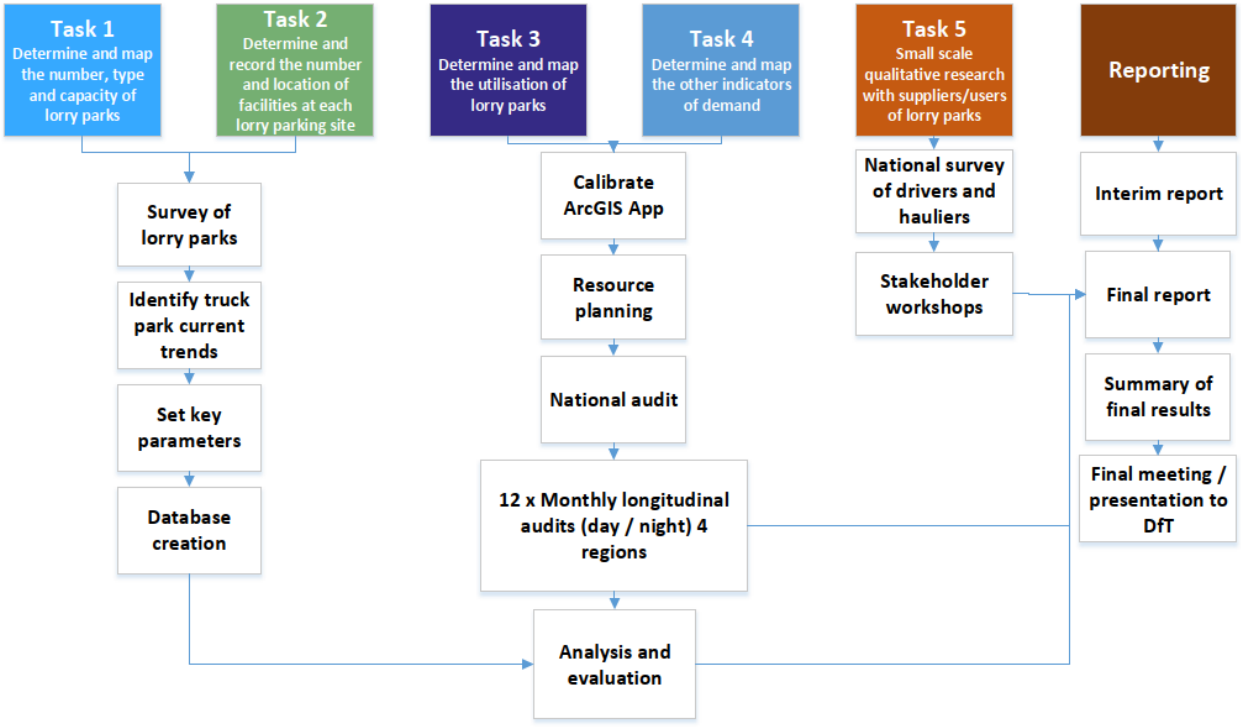
This section sets out the overall methodology and approach taken to complete the various tasks of the 2022 lorry parking research.

The methodology is split into several key areas and the following sub-sections provide the background details of how AECOM undertook the full range of tasks set out in the scope.

2.2 Overview of methodology

Figure 2-1 outlines the individual work activities of the methodology.

Figure 2-1: Methodology process



2.3 Identifying and updating the base information

2.3.1 Desktop research

Extensive desktop research was undertaken based on data from the previous 'DfT Lorry Parking Study (2017)'. This research helped create the platform from which to launch the physical site audits and ensured that the most efficient and effective approach was used.

The AECOM team reviewed information held by DfT on HGV parking based on the previous survey, which included details of lorry parking facilities within five kilometres of the SRN, facilities, GPS coordinates, capacity, and main point of contact. Attempts to call (up to three times where necessary) all existing independent truckstops within five kilometres of the SRN to verify/update information obtained through the desk-top research were made. Where possible, the information was updated with data collected from the desktop research. The AECOM team removed any sites no longer operational within five kilometres of the SRN. More detailed information concerning number of toilets and showers was added where possible, as well as information on specific facilities (e.g. shop, truck wash etc) and security features.

In addition, a detailed search for new parking facilities within five kilometres of the SRN was conducted using online sources and apps such as:

- www.transportcafe.co.uk
- www.truckanddriver.co.uk
- www.snapacc.com
- www.truckparkingeurope.com/app
- Intruckapp.com
- Motorwaybuddy/app

Any new lorry parking sites that were discovered within a five kilometre radius of the SRN were added to the database.

2.4 Audit planning and resourcing

2.4.1 Programme of national audits

The 2022 programme of national audits took place in March 2022 to provide a direct comparison of overnight on-site and off-site utilisation with the previous studies, which took place in March 2010 and 2017, and to assess utilisation of any newly identified sites. The 2022 night audits were undertaken on Mondays, Tuesdays, Wednesdays, and Thursdays between the hours of 6.00pm and 2.00am. Teams of two auditors travelling in one car on pre-arranged routes conducted each nightly audit.

All on-site parking facilities, industrial estates and laybys within five kilometres of the SRN were visited.

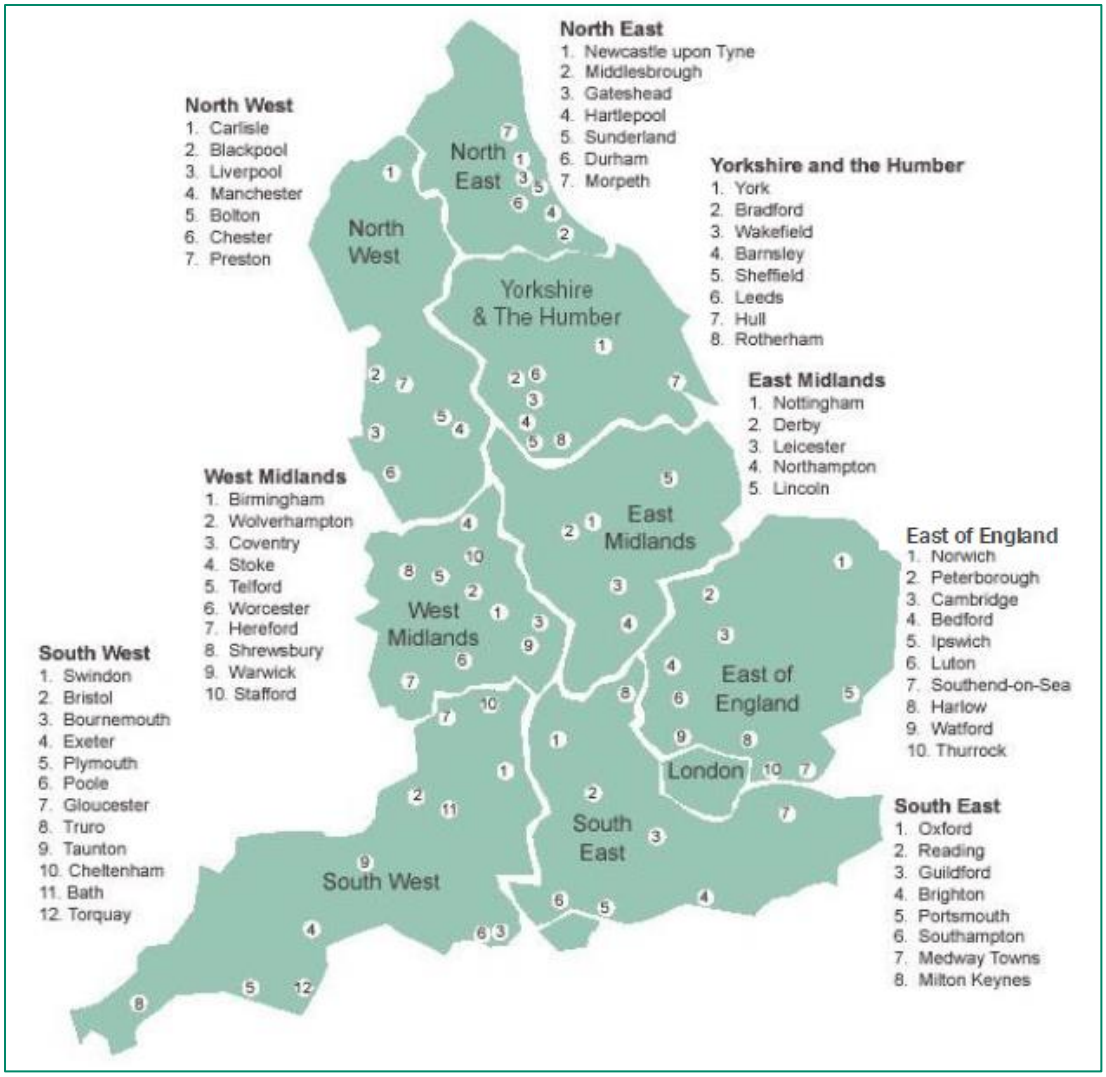
For the purpose of this study, off-site locations refer to industrial estates and laybys and on-site parking facilities refer to independent truckstops, local authority truckstops, MSAs and TRSAs. A definition for each on-site sub-classification can be found at Appendix A.

2.4.2 Routing and scheduling of audits

As in 2010 and 2017, the country was split into nine separate regions and each region was assigned an area manager. The regions were originally based on the nine administrative regions from The Government Offices for the English Region, and the same regions and boundaries have been used for the 2022 study, as listed below, and shown at Figure 2-2:

- East Midlands
- East of England
- London
- North East
- North West
- South East
- South West
- West Midlands
- Yorkshire and the Humber

Figure 2-2: Map from the Government Offices for the English Regions showing the nine regions



A team of two auditors was allocated to a region for several nights, or weeks, depending on their availability.

Each area manager was responsible for planning the nightly routes of the audit team(s) working in their region. This was done by using a combination of the Esri ArcGIS Field Maps application (Section 2.5.2) and route optimisation software to produce route maps containing multiple destinations for each team to visit during each audit night. This approach meant that the amount of time, distance, environmental impact and financial cost of undertaking the lorry parking audits could be minimised as much as possible.

2.4.3 Resource planning

This study required the mobilisation of many staff resources. Nine audit teams of two auditors were allocated to the nine regions across England. To give maximum value and provide local knowledge, some auditors were sourced from AECOM offices in or close to the region being surveyed. Reserve auditors were fully briefed to ensure resilience.

2.4.4 Risk mitigation

A formal safety, health, and environment (SHE) plan, which included a full risk assessment and a communications plan, was put in place and reviewed by AECOM's Health and Safety Lead (Appendix B). The Work Package Manager and Work Package Director briefed the auditors on the details of the SHE plan, who were then required to sign it once read and fully understood.

The SHE plan continues to be maintained for the longitudinal audits (Section 2.6). It has been updated several times and staff involved in the longitudinal audits have been asked to sign it, including those previously involved in the national audits to refresh their knowledge.

The SHE plan fully identifies the risks associated with conducting audits, as well as ways to mitigate these. It also includes a variety of areas to reduce personal risk to staff as well as risk of incidents such as collisions with other vehicles, vehicle breakdowns, and driver fatigue. Emergency contact details were collected for each auditor, stored separately and only shared with the relevant team members to maintain confidentiality.

A WhatsApp Group was created for the national programme of audits for all communications relating to the audits, including queries and checking-in. The group is used for the longitudinal audits although the communications procedure was changed – this was reflected at Version 03 of the SHE plan.

2.4.5 Briefing sessions

Two virtual briefing sessions were organised for the team of auditors. The virtual sessions enabled efficient sharing of information with the team, covering the following information in detail:

- What the working week would entail
- An overview of the project
- The roles of the auditors and regional managers
- Use of app and information to be collected whilst auditing
- How to distinguish UK and non-UK registered vehicles based on country mark
- Route planning and optimisation
- Regions to be covered
- Information about the teams
- Schedule of audits
- Resource planning
- SHE plan, including emergency and breakdown procedures

In addition, separate briefing sessions were delivered to regional managers so they would fully understand their role and the importance of route planning. Further briefing sessions were held with regional managers after the first week of auditing to discuss the working week and any issues experienced (whether collecting data or route planning) which could be solved to make the following week's data collection more productive.

2.4.6 Letter of authority

All audit teams were required to carry hard copies of the DfT letter of authority (Appendix C) which demonstrated the authenticity of the study and provided details of project objectives and activities being undertaken during the site audits. The letter was signed by a DfT representative and included the Work Package Manager's contact details in the event of audit teams being stopped by security at a site or the police whilst auditing. This letter was shown on a number of occasions by several auditor teams.

2.5 Audit

2.5.1 Data collected

The purpose of the study was primarily to determine and map the number, type, and capacity of on-site parking facilities, determine and map the utilisation at on-site facilities, and determine and map the extent of other indicators of demand (i.e. lorries

parked at off-site locations) so that the national parking capacity for lorries for 2022 could be established.

Parking capacity at industrial estates and laybys (off-site) is difficult to quantify due to there being no clearly defined parking spaces and was therefore not included in the scope of the study. However, AECOM did manage to estimate the capacity for about 28 per cent of laybys (894 sites with a total capacity of 2,250) – this is not included in the on-site capacity.

Auditors also collected data around driver welfare and vehicle support. The data collected was slightly different for on-site and off-site locations, bearing in mind what facilities each particular type of site can genuinely offer.

Table 2-1 provides an overview of all the data collected.

Table 2-1: Overview of data collected at on-site and off-site locations

Independent truckstops, local authority truckstops, MSAs, TRSAs

Capacity and demand
Number of spaces
Number of UK registered vehicles
Number of foreign registered vehicles

Driver welfare	
Parking charge	Accommodation
Toilets	WiFi
Showers	Shop
Café	Bar
CCTV	Gym
Lighting	Laundry
Security fence	Driver lounge

Vehicle support
Filling station
Charge points
Truck wash
Accept refrigerated trailers
Provisions for vans

Laybys

Demand
Number of UK registered vehicles
Number of foreign registered vehicles

Driver welfare
Oxbow
Toilets
Café
Lighting

+ Capacity recorded where possible

Industrial estates

Demand
Number of UK registered vehicles
Number of foreign registered vehicles

Driver welfare
Café
Lighting

2.5.2 Data collection mobile application

Data on the lorry parking sites was collected using a mobile application 'ArcGIS Field Maps' ("the app"). This is a cloud-based mapping platform designed by Esri. This app allowed audit teams to digitally record site visit observations using their mobile phone.

The revised database formed during the desktop research phase was imported into the app and the GPS coordinates were used to pinpoint each of the lorry parking sites on a map (Figure 2-4 to Figure 2-7). An icon was allocated to each type of lorry parking site (Figure 2-3).

Figure 2-3: Icons allocated to each type of lorry parking site

The audit teams were able to collect data using the live atlas mode or off-line by downloading area maps to their phones beforehand and uploading collected data to the cloud at the end of their shift when they had access to the internet.

Figure 2-4: Full view

Figure 2-5: Regional view

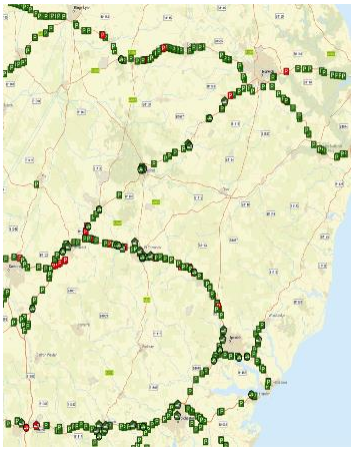


Figure 2-6: Selected site

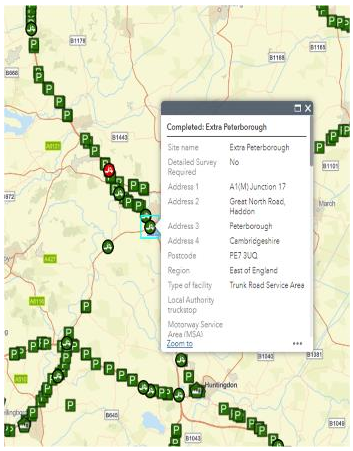
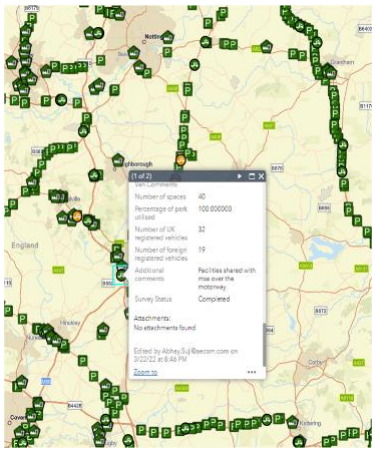


Figure 2-7: Editing fields



The use of the app reduced the time required to process data compared to paper audit forms and made it simpler to update information if required. However, the audit teams were required to carry hard copies of the data collection form (Appendix D) as back-up.

2.6 Longitudinal audits

The March 2022 national programme of night audits is being augmented by monthly one-day/one-night audits on a selection of four audit routes where the same sites are audited at every visit to understand seasonal variations in roadside parking. These routes are within the following regions:

- **North West** – Warrington, Runcorn, Ellesmere Port, Knutsford and Lymm (M6, M56, M53, A49, A50, A56, A557 and A41)
- **Midlands** – North Staffs/South Derby corridor, M1/M6 connector including Stoke (A500, A50)
- **East of England** – Felixstowe, Ipswich, Bury St Edmunds, Newmarket, Colchester, Cambridge (A14, A12)
- **South East** – Maidstone, Ashford, Canterbury, Sittingbourne box (M20, A2, M2, A249)

The note at Appendix E sets out the routes and the rationale for their selection. It describes their key features, including the number and type of parking sites and how that compares with the national total so that findings from the longitudinal studies can be extrapolated to the national level as accurately as possible. A commentary is given on any route and site biases that may need to be considered when using the survey results to show a national picture.

2.7 Analysis and evaluation

Sections 3, 4 and 5 respectively present the headline information from the programme of audits nationally, in comparison to 2017, and regionally.

The findings of the longitudinal audits are shared regularly with the DfT to highlight seasonal variation. The results will be reported separately when the audits for these complete in February 2023.

2.8 Driver and industry engagement

2.8.1 Lorry parking and driver welfare survey

AECOM devised a short survey to seek lorry drivers' views on what overnight and day-time facilities freight drivers need so that emerging trends and requirements can be identified to help improve driver welfare, driver safety, and industry conditions. No survey was carried out in the previous studies and therefore no direct comparisons can be made.

A poster was designed with a QR code linked to the survey and included the URL to the survey for those without cameras on their phones. (Appendix F – note that the URL/QR code will no longer be live after the end June 2022).

AECOM approached MSA operators asking if these posters could be displayed and they were placed at Welcome Break, Roadchef, and Moto sites. Auditors also distributed some surveys when doing the longitudinal audits.

The survey closed on 30 June 2022 with 364 responses – the findings are described at Section 6.1.

2.8.2 Driver focus group

AECOM organised a focus group with lorry drivers at Lymm truckstop on the evening of Wednesday 18 May 2022. The purpose of the focus group was to expand on the topics raised in the driver survey and explore drivers' opinions about overnight lorry parking. The team on the day comprised of two recruiters, a moderator, the project manager and another member of the freight team.

AECOM prepared a Focus Group Discussion Guide to provide structure to the group (Appendix G.)

Section 6.2 provides a detailed summary of the findings.

2.8.3 Stakeholder engagement discussion

AECOM organised a stakeholder engagement discussion on the morning of Thursday 16 June 2022 to hear the views from industry and other interested parties on lorry parking and driver facilities/welfare – the findings can be found at Section 6.3.

The discussion took place by means of a Teams virtual meeting and included:

- Update on the national lorry parking audits, including regional variations
- Comparison with the 2017 lorry parking audits

- Barriers to increasing lorry parking capacity, utilisation, and quality – and potential solutions
- Access to funding for industry to improve security and facilities at existing sites
- Role of industry and government
- Aspirations/strategies for independent truckstops, local authority car/lorry parks, MSAs, and TRSAs

AECOM invited representatives from organisations representing trade associations, government institutions, transport bodies, local authorities, MSA operators, enforcement agencies, lorry parking booking apps, and developers. These included:

- Ashford International Truckstop
- British Parking Association (BPA)
- Carter Jonas
- Chartered Institute of Logistics and Transport (CILT)
- Certas Energy
- Extra Services
- Formula Services
- Logistics UK
- Midlands Connect
- Moto
- National Highways (NH)
- National Vehicle Crime Intelligence Service (NaVCIS)
- Onroute Truckstops (did not attend)
- Roadchef
- SNAP Account
- Transport for the North
- Welcome Break (sent apologies)

3. National lorry parking audit results

3.1 Introduction

The national programme of audits took place on Monday to Thursday nights in March 2022 within five kilometres of the SRN. For this study, and as for the previous 2010 and 2017 studies, lorry parking locations included the following sites (as defined at Appendix A):

- **On-site parking facilities**
  - Independent truckstops
  - Local authority truckstops
  - Motorway service areas (MSAs)
  - Trunk road service areas (TRSAs)
- **Off-site parking locations**
  - Industrial estates
  - Laybys

Off-site locations have been included as many lorry drivers still opt to park there (the reasons are being examined as part of the driver engagement), representing 35 per cent of all vehicles observed. Whether off-site parking is to be considered as inappropriate for overnight parking is undetermined. However, there is a shortage of lorry drivers and one reason for this is the negative public perception of the industry, as well as drivers feeling underpaid and undervalued. Providing drivers with safe parking facilities with suitable washing and food facilities, to enable them to have a pleasant overnight rest, is important for improving driver welfare, perception, and road safety. If safe parking locations with suitable washing and food amenities are the standard industry should aspire to in order to achieve these goals, then most laybys and industrial estates would fall woefully below this standard.

The data provides a breakdown by type of on-site facility to help build a more detailed picture about utilisation.

A total of 4,396 on-site and off-site lorry parking location were audited. The audit findings represent a typical night's worth of on-site and off-site lorry parking in the month of March across the entire network. This allows a direct comparison of overnight on-site and off-site utilisation against the 2017 study.

The country was divided into nine regions, as shown below, and the boundaries of the nine regions are defined at Section 2.4.2.

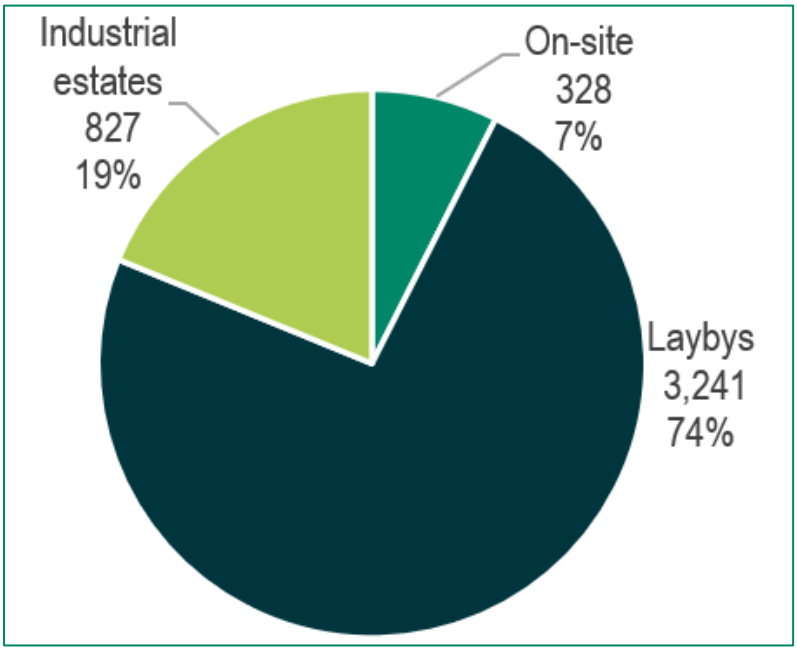
- East Midlands
- East of England
- London
- North East
- North West
- South East
- South West
- West Midlands
- Yorkshire and the Humber

3.2 On-site and off-site facilities

3.2.1 On-site and off-site parking locations audited

As shown at Figure 3-1, out of the 4,396 lorry parking sites audited, 328 are on-site facilities, 827 are industrial estates, and 3,241 are laybys. Figure 3-1 below shows the number of sites but does not fully represent overall parking capacity as it is difficult to estimate spaces at off-site locations such as industrial estates and some laybys.

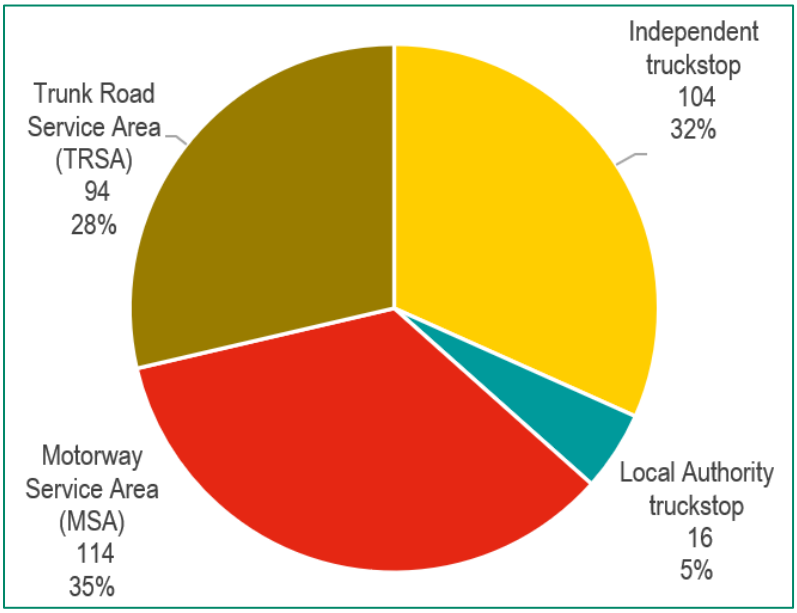
Figure 3-1: Number of on-site and off-site parking locations by type



Whilst on-site locations form only seven per cent of the total number of locations audited, they provide the on-site facilities that support essential driver welfare and ultimately safety.

The total figure of 328 on-site parking facilities includes 114 MSAs, 104 independent truckstops, 94 TRSAs, and 16 local authority truckstops (Figure 3-2). On-site capacity is shown in Section 3.3.

Figure 3-2: Number of on-site parking facilities by type



AECOM auditors were not able to visit two independent truckstops as access was denied for security reasons despite the DfT letter of authority being presented. Despite subsequent efforts to obtain the data, it was not available within the study timeline. Capacity for the two sites, which is logged as 60 for one and 130 for the other from desktop research, has been suppressed from any reporting so as not to misrepresent utilisation levels. However, the two sites are included in the total on-site parking facilities.

3.2.2 On-site and off-site parking charges recorded

Average, minimum and maximum charges for each on-site parking facilities are demonstrated in Table 3-1 - mean average has been used as this provides a single typical value to represent an entire dataset. The charges for overnight parking vary depending on the type of on-site parking facility, and also within the same type.

Table 3-1: Charges by type of on-site parking facilities

On-site parking type	Mean average	Minimum	Maximum
Independent truckstop	£21.36	£4.50	£38.40
Local authority truckstop	£11.67	£2.50	£24.00
Motorway service area	£28.16	£14.99	£35.00
Trunk road service area	£15.89	£8.00	£28.00

Many on-site parking facilities offer deals that are beneficial to the drivers, such as parking and meal voucher, or parking, meal and shower voucher for example, making the overall charge more cost effective. The charges recorded within the data are for the most basic level of parking (i.e. no deals included or the entry-level deal where automatically included in the base price) due to the huge variation in charging structure and deals.

The mean average charge at MSAs is £28.16. This is higher than the mean average charge at independent truckstops (£21.36). The highest charge observed at an MSA is £35, and the highest at an independent truckstop is £38.40. Local authority truckstops have the lowest mean average (£11.67) out of all on-site parking facilities. This reflects the fact that, typically, fewer facilities are available at these sites and as such the charge is lower. The mean average charge of non-MSA parking facilities is £19.16. Therefore, on average, it costs £9 more to park at an MSA compared with a non-MSA parking facility.

The charges at MSAs are typically higher than other types of on-site parking facilities for several reasons including, but not limited to, the following:

- Having to be open 24/7 and hence having to employ extra staff on unsociable evening, night, and weekend shift rates
- Drivers not having a choice of facility within 30 minutes driving time – this is based on DfT Circular 02/2013 ‘The strategic road network and the delivery of sustainable development’ of having a facility at a maximum of 28 miles interval, and the assumption of normal traffic levels with the driver travelling at 56 miles per hour
- Not being able to adjust according to supply and demand
- Potentially to help support the less used sites around the country
- Not being allowed to be specified as vehicle operating centres by hauliers unlike independent truckstops, which limits one of the possible revenue sources

3.2.3 On-site parking facilities ratings

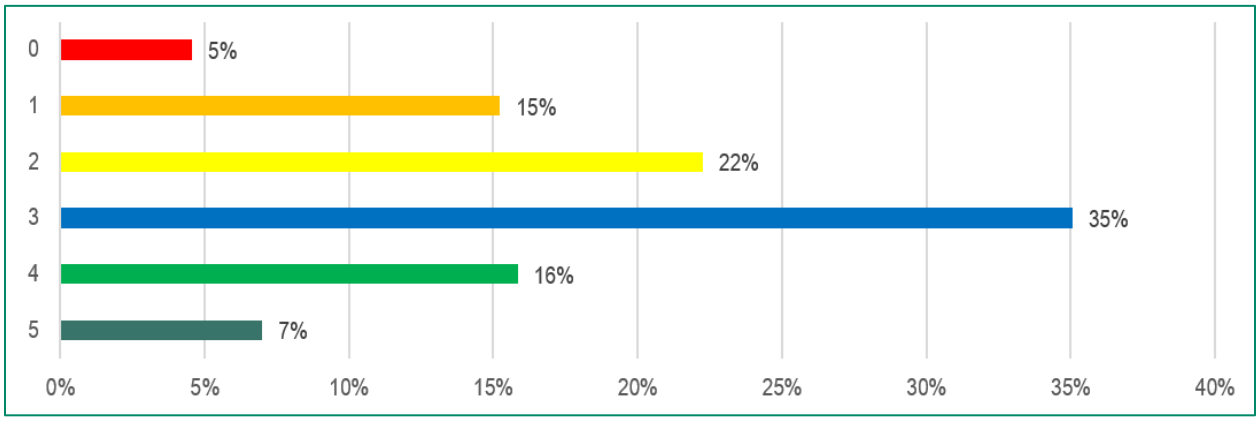
A rating system based on facilities available was devised in 2017 to rate all on-site parking facilities (Table 3-2)**.** This rating system is based on a five-point scale which is broadly in line with LABEL, the European Truck Park Area Certification system. As the system devised does not include all the LABEL criteria, the results should be used indicatively. Nevertheless, it provides a useful ranking overview based on the type of facilities available at lorry parks.

Table 3-2: Lorry parking sites rating basis

Site rating	On-site parking facilities	Description
0	No facilities	Basic rest area with no facilities
1	Toilets	Basic rest area offering lorry drivers a place to park and access to toilets
2	Toilets and café	Basic/medium rest area offering lorry drivers a place to park and access to basic amenities
3	Toilets, showers, and café	Medium level facility offering lorry drivers a place to park with basic amenities including wash facilities
4	Toilets, shower, café, lighting, and security fence	Medium/high level facility offering a degree of secure and safe lorry parking whilst also offering reasonable facilities for lorry drivers
5	Toilets, shower, café, lighting, security fence, accommodation, and CCTV	High end lorry parking facility offering lorry drivers a place to park security and safely whilst also enjoying extensive facilities

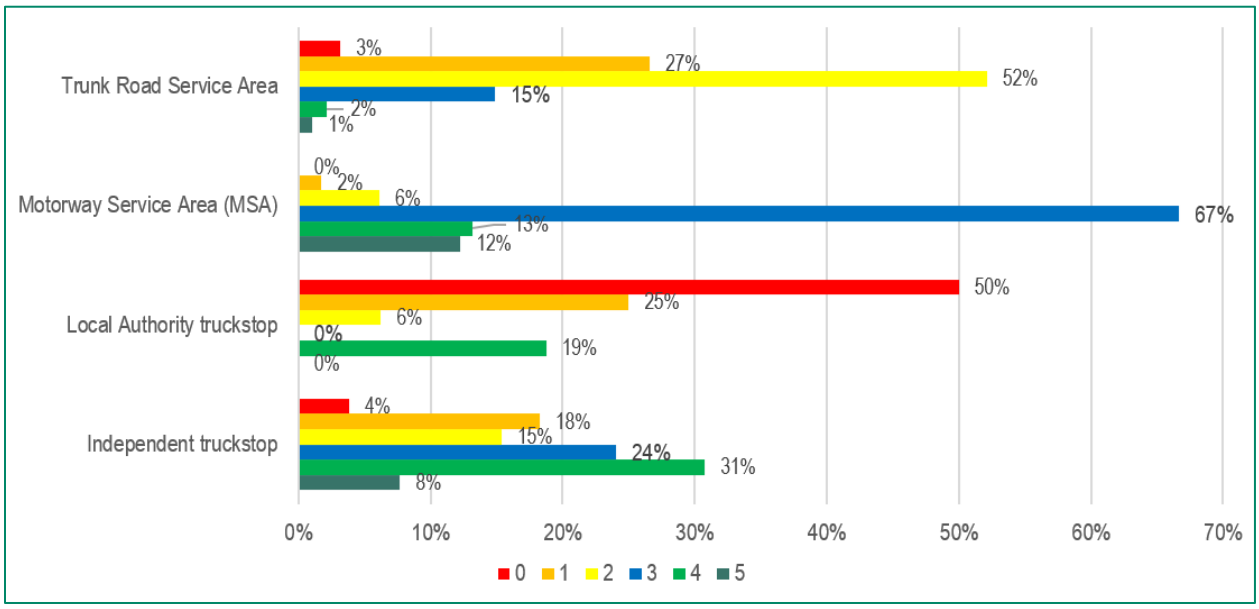
As per Figure 3-3, 23 per cent of all on-site parking facilities are rated 4 and above (have security features), with the majority (35 per cent) rated a 3. In total 15 on-site parking facilities have a rating of 0, comprising of four independent truckstops, eight local authority truckstops, and three TRSAs.

Figure 3-3: Proportion of on-site parking facilities by rating



25 per cent of MSAs are rated 4 and above, i.e. have security features, against 39 per cent for independent truckstops, 19 per cent for local authority truckstops and only three per cent for TRSAs (Figure 3-4).

Figure 3-4: Proportion of sites by rating by type of on-site parking facility



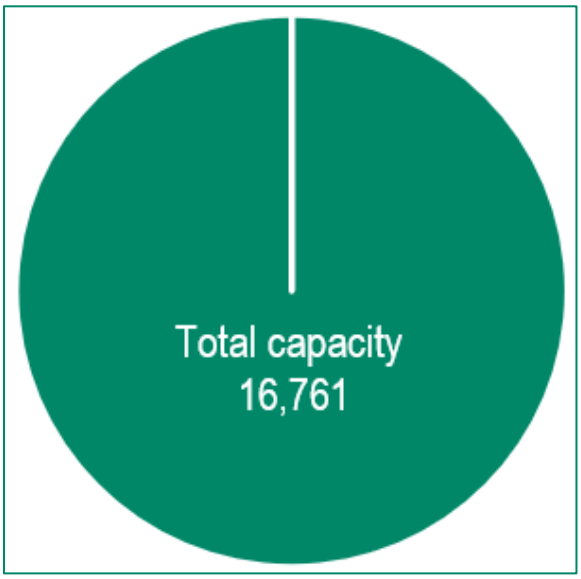
The most common rating for each of the four types of on-site parking facilities are: independent truckstops rated as a 4 (31 per cent), MSAs a 3 (67 per cent), TRSAs a 2 (52 per cent), and local authority truckstops a 0 (50 per cent). Local authority truckstops with no facilities are typically car parks which are used for lorry parking in the evenings. The current independent truckstop classification does include facilities that might have a café with toilet open in the day but not opened at night - hence the data shows that there are on-site locations with no amenities.

3.3 On-site capacity

The total on-site capacity observed during the night audits in March 2022 was recorded at 16,761 (Figure 3-5). There is no capacity for industrial estates that can be recorded, nor for laybys, although some auditors did estimate the capacity of just over a quarter of the laybys. This is not included in this figure as laybys are considered off-site parking.

The capacity for lorry parking at on-site parking facilities will vary between the site classifications. Independent truckstops and local authority truckstops will typically be dedicated for lorry parking. MSAs and TRSAs cater for different customers e.g. car parking, caravan parking, coach parking and lorry parking. Capacity for each varies but for the purposes of this study we have only counted nominated lorry spaces at these sites in the overall capacity.

Figure 3-5: Total on-site capacity



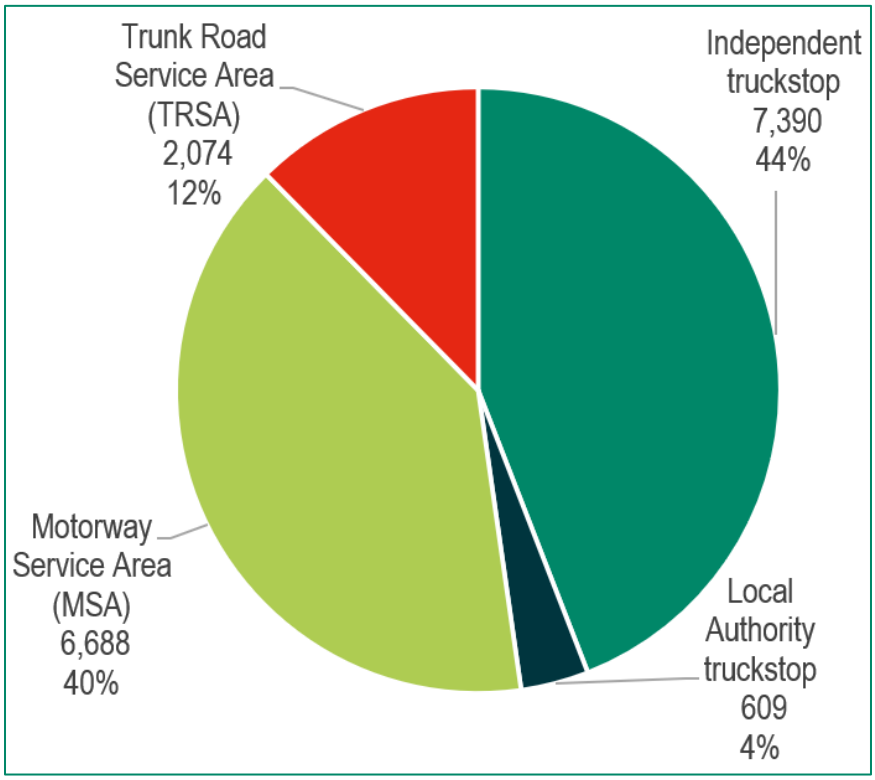
Capacity can vary depending on the size of the lorries and many sites tend to provide different numbers themselves, stating that it varies depending on the size of the lorries, adding they can squeeze a few more on adjacent land in addition to the official capacity. Typically, the capacity is determined by the number of marked bays (white lines if used) that are dedicated for lorry parking at MSAs, TRSAs and local authority truckstops. Where the bays are not marked out, the capacity is determined by the operators of the site and how they decide to arrange the vehicles. This can vary depending on the ingenuity of banksmen, with some grouping lorries together depending on their estimated time of departure. Where drivers are not guided, they will drive around to locate a space. If drivers cannot park in the designated lorry areas, some will resort to

parking on slip roads, bays reserved for cars or coaches, fuel filling areas and in access roads to on-site parking facilities. These locations are not recorded as capacity. However, the vehicles in these locations were recorded as part of the vehicles observed and it may indicate the site is over capacity (greater than 100 per cent utilised) because vehicles have resorted to using these locations.

For the purpose of the national audit, on-site parking capacity for individual sites (and for the overall total capacity across the network), has therefore been determined by a number of means. Data from desktop research using websites and booking apps was collected and compared where possible with the 2017 data. Data gaps and significant variations were investigated further by calling the sites themselves. Finally capacity figures were validated on-site during the physical audit process.

Of the 16,761 on-site lorry parking capacity, the greatest number of spaces can be found at independent truckstops with 7,390 spaces, followed closely by MSAs with 6,688 spaces, representing a combined parking capacity of 84 per cent of the total (Figure 3-6). TRSAs provide 2,074 parking spaces, and local authority truckstops provide 609 spaces, representing 12 and four per cent of lorry parking capacity respectively.

Figure 3-6: Total capacity by type of on-site parking facility



3.4 On-site and off-site vehicles observed

3.4.1 Vehicles observed

Vehicles observed refers to lorries parked in marked and non-marked bays in the vicinity of a site (e.g. slip road to an MSA) – this includes articulated and rigid HGVs. The vast majority of vehicles observed were articulated HGVs but there were smaller numbers of rigid HGVs figures included.

21,234 vehicles were observed across all on-site and off-site locations audited.

13,916 vehicles were observed at on-site parking facilities (Figure 3-7), representing 65 per cent of all vehicles observed. A further 3,161 vehicles were recorded in industrial estates and 4,157 in laybys, representing a combined 35 per cent of all vehicles.

The total of 13,916 vehicles recorded at on-site facilities includes 6,284 vehicles at independent truckstops - the highest number of vehicles - followed closely by MSAs with 5,630 vehicles, representing a combined 86 per cent of all parked vehicles at on-site parking facilities (Figure 3-8). A further 1,685 vehicles were recorded at TRSAs and 317 in local authority truckstops.

Figure 3-7: Vehicles observed by parking site

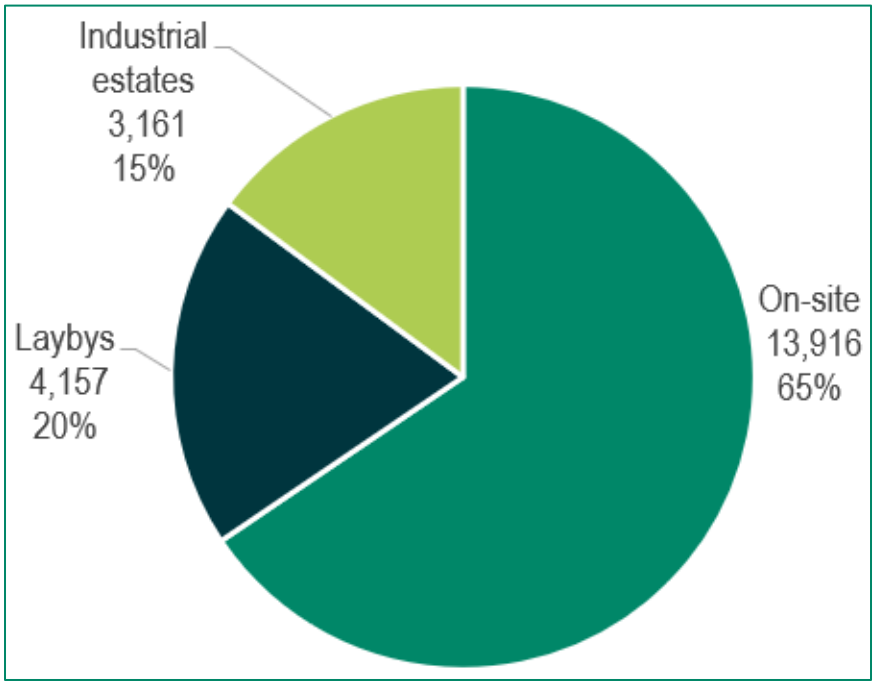
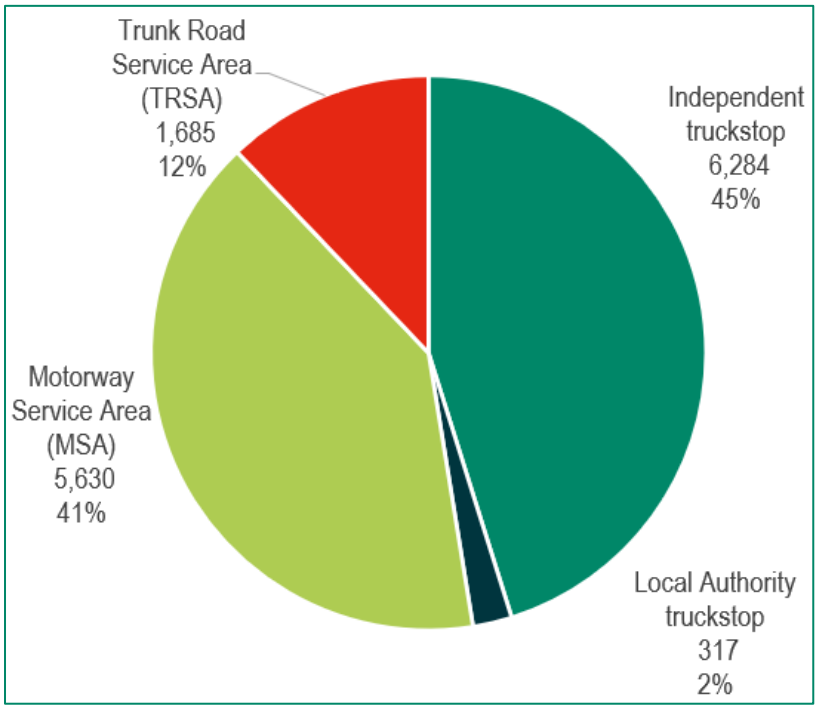


Figure 3-8: Vehicles observed on-site by type of parking facilities



3.5 UK v non-UK registered vehicles observed

Vehicles observed were recorded as either UK registered or non-UK registered. The distinction of the vehicle is based on the country identifier marked on the vehicles. Examples can be seen below in Figure 3-9.

Figure 3-9: Examples of country identifiers

15,583 UK registered vehicles (73 per cent) were recorded at all parking locations against 5,651 non-UK registered vehicles (27 per cent) (Figure 3-10).

Figure 3-10: Split of UK and non-UK registered vehicles by site type

		UK/Non-UK registered vehicles		
		UK	Non-UK	All vehicles
Number of vehicles (%) by site type and registration	All on-site facilities	9,400 (68%)	4,516 (32%)	13,916 (100%)
	Off-site - laybys	3,447 (83%)	710 (17%)	4,157 (100%)
	Off-site – ind est	2,736 (87%)	425 (13%)	3,161 (100%)
	All sites	15,583 (73%)	5,651 (27%)	21,234 (100%)
Proportion of vehicle by registrations at site types	All on-site facilities %	60%	80%	
	Off-site – laybys %	22%	13%	
	Off-site – ind est %	18%	7%	
	All sites %	100%	100%	

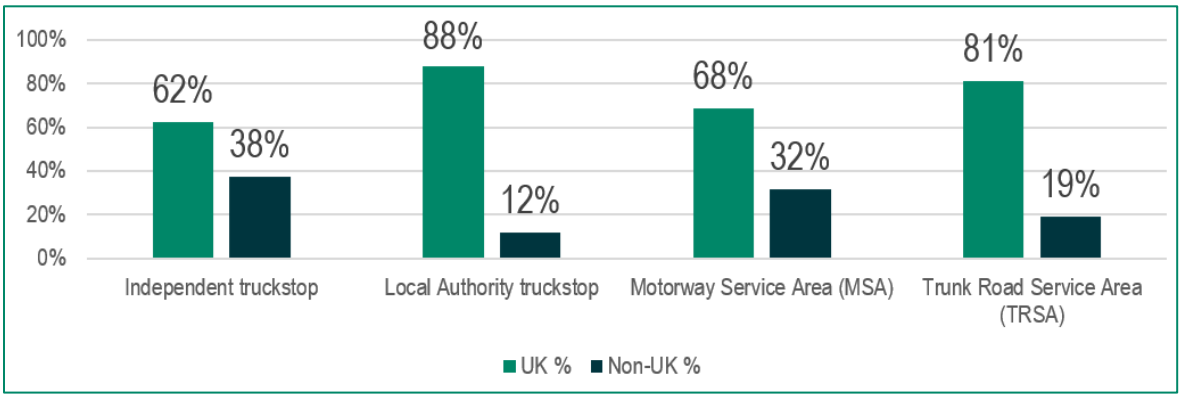
Out of the total 4,516 vehicles parked at on-site facilities, 68 per cent of these were UK registered and 32 per cent were non-UK registered. There is a similar trend at off-site parking locations with the biggest proportion of vehicles registered to the UK.

60 per cent of all the UK registered vehicles observed were located at on-site parking facilities, with the remaining proportion observed at off-site locations.

80 per cent of all the non-UK registered vehicles observed were located at on-site parking facilities, with the remaining proportion observed at off-site locations.

38 per cent of non-UK registered vehicles were found in independent truckstops and 32 per cent in MSAs (Figure 3-11.)

Figure 3-11: UK/Non-UK registered vehicles by type of on-site parking facility



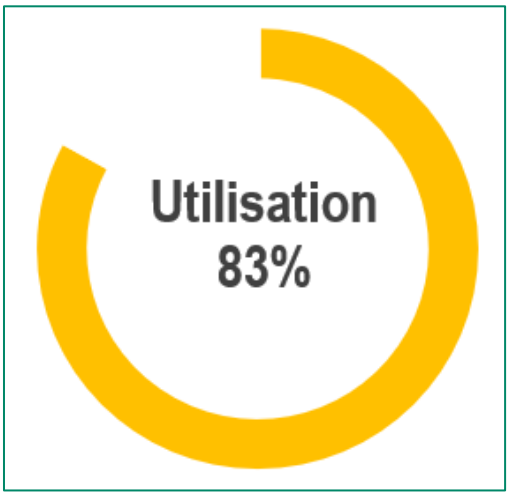
The proportion of non-UK registered vehicles moving on UK roads and hence using services has a graduated pattern across the country. This reflects the international corridors serving predominantly the ports where RORO (Roll On Roll Off) ferries and the Channel Tunnel operate. Hence the highest percentage of non-UK registered vehicles is on the main routes in Kent which serves the Port of Dover/Channel Tunnel. It is understood that around 88 per cent of the driver accompanied vehicles using these crossings are non-UK registered vehicles and these lorries are destined for a wide range of customers throughout the UK and Ireland. In general, the percentage of non-UK registered vehicles dilutes the further north the observations are made, but even in the North East, non-UK registered vehicles represented 13 per cent of those recorded.

As far as non-UK drivers are concerned, many gravitate to sites that cater well for them in terms of food, facilities, and a chance to speak with colleagues from all over Europe. Examples include independent truckstops such as Ashford International and Junction 26 Diner just off the M25 which are popular with non-UK drivers. In the latter case, 60 of the 150 vehicles observed (40 per cent) were non-UK registered on the evening of the audit.

3.6 Utilisation

Based on the capacity and number of vehicles parked, AECOM has been able to determine the level of utilisation across all on-site parking facilities along the SRN in England. As shown in Figure 3-12 below, the utilisation level across all on-site parking facilities is 83 per cent.

Figure 3-12: On-site utilisation



The system agreed with the DfT in the 2017 study to categorise lorry park utilisation has been used again for this study to help understand the utilisation levels (Table 3-3).

Table 3-3: Utilisation categorisation

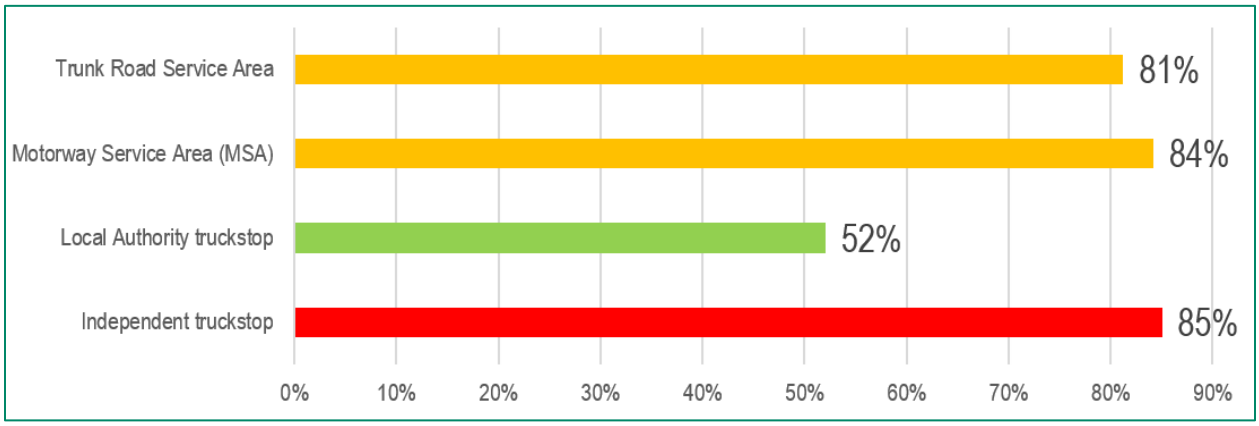
Description	Utilisation
Critical	Greater than or equal to 85%
Serious	70% to 84% full
Acceptable	Less than or equal to 69% full

An on-site parking facility is a working site throughout a typical 24 hour period with lorries arriving and departing at all hours of the day and night. Some drivers just want to stop for their legal 45 minute break from driving and others want to have their main daily overnight or even weekend rest break. Hence utilisation of the parking spaces varies throughout the day and night. Due to the need to cater for the various types and lengths of rest break, there was a need to agree some form of category that gives an indication of when sites are getting full. Lorries are made up of many types and sizes and although the majority of vehicles parked overnight are 16.5 metre long articulated lorries, a site needs to accommodate longer semi-trailers, draw-bar units, left hand drive vehicles and a variety of abnormal sizes. Hence many sites do not mark out individual parking bays. Finding a suitable place to park can be particularly difficult on a dark evening, at a badly lit site in poor weather conditions. Taking the various factors into account, it was previously agreed with the DfT, that 70 per cent full is deemed to be reaching a seriously full status where drivers have to search carefully for spaces. At utilisation of 85 per cent or more, it becomes critical and very difficult for additional drivers to find parking spaces depending on the size of their vehicles and the way parked vehicles are positioned. So, drivers may deem that a lorry park which is utilised at greater than 85 per cent is in fact full.

Based on the approved categorisation, the 2022 study demonstrates that the utilisation levels across all on-site parking facilities on the SRN is reaching the critical level of 85 per cent across the whole of England in what is typically a quieter month.

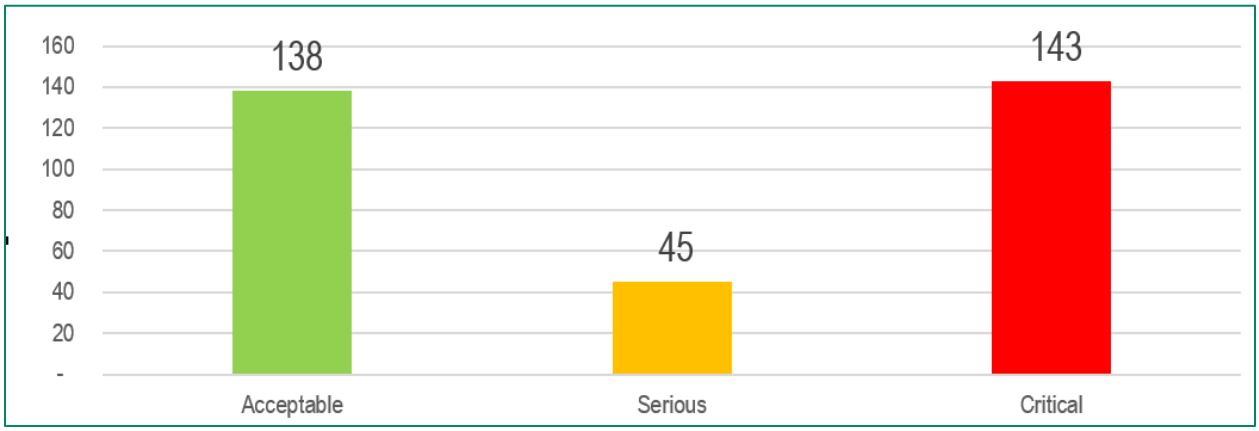
The utilisation of the different classifications of on-site parking facilities does not differ much from the overall average, with the exception of local authority truckstops (Figure 3-13). The utilisation at independent truckstops has reached critical levels at 85 per cent, whilst MSAs are also practically at critical levels at 84 per cent. TRSAs are at serious levels at 81 per cent, and local authority truckstops are in the acceptable bracket at 52 per cent. This low percentage does not affect the total utilisation because that type of site only accounts for a small proportion of the total sites and vehicle capacity.

Figure 3-13: Utilisation by type of on-site parking facility



Out of 326 on-site parking facilities (the two truckstops not visited having been suppressed as detailed at Section 3.2.1),143 on-site parking facilities are at critical level, meaning almost 44 per cent of on-site parking facilities are at critical level across England. A further 45 sites are at serious level, and 138 at acceptable level (Figure 3-14). Of the sites that are at a critical level, 100 sites have a utilisation of 100 per cent or more. When sites are completely full, two things happen, either drivers are turned away or alternatively vehicles are parked in non-designated places such as in a coach park area, on slip roads or on access roads. In some cases, this random parking can cause safety concerns.

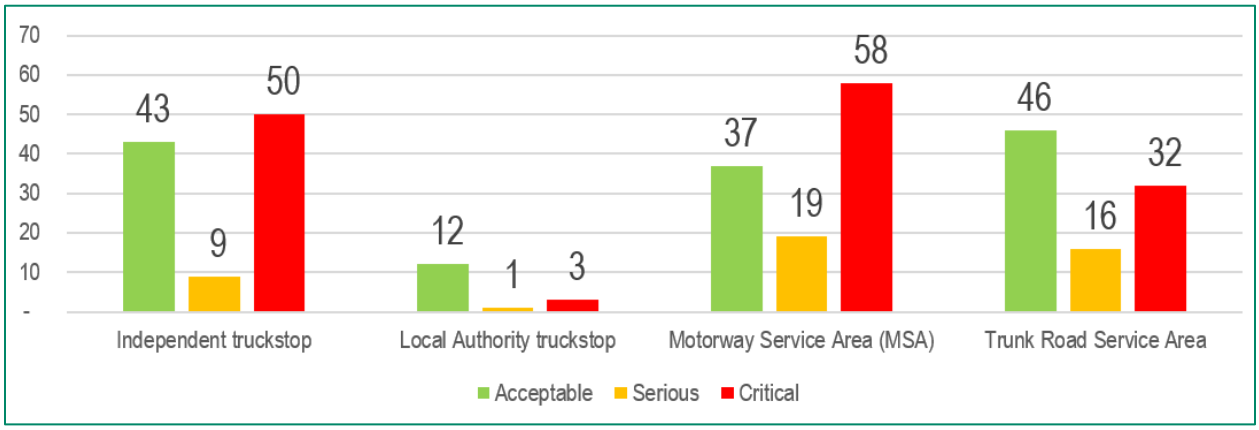
Figure 3-14: Number of sites by utilisation status



It is worth nothing that only 13 of the 143 critical sites have a capacity of less than 10 spaces. It is therefore not the case that sites with little spare capacity are generally the small, easy to fill ones. In fact, the overall capacity of critical sites is 9,698, which is 58 per cent of the total on-site capacity of 16,761.

Figure 3-15 below details the status of utilisation by number and type of on-site parking facility. As can be seen, 58 MSAs, 50 independent truckstops, and 32 TRSAs are at critical levels.

Figure 3-15: Number of on-site parking facilities (326) by type and utilisation status



4. 2017 v 2022 national lorry parking audit comparison

To put the 2022 lorry parking situation into perspective, several comparisons have been made with the 2017 data to identify changes in truckstop sites, their capacity, the levels of demands and how truckstop utilisation has changed.

4.1 On-site and off-site parking facilities audited

The total number of on-site parking facilities, i.e. independent truckstops, MSAs, TRSAs and local authority truckstops, has increased from 311 to 328. This represents an increase of five per cent from 2017 (Table 4-1). The net change is due to sites closing and others opening. The data also shows a five per cent decrease in the number of laybys (3,397 to 3,241) but a three per cent increase in industrial estates (801 to 827). Some of the existing sites have been repurposed because of changes to road infrastructure with new sites coming online with the increasing demand for warehousing.

Table 4-1: Number of on-site and off-site parking locations 2017 v 2022

Sites	2017	2022	Change
On-site facilities	311	328	5%
Laybys	3,397	3,241	-5%
Industrial estates	801	827	3%

Table 4-2 provides a breakdown of the changes in on-site parking facilities, including the number of facilities audited in 2017, facilities removed during desktop research, facilities added during desktop research and auditing, and facilities removed during data analysis. This results in a total of 328 on-site parking facilities which were audited during 2022. Sites which have been removed are as a result of factors such as on-site parking facility closing, repurposed as private depots, unofficial parking, duplication of data entries, and incorrect classifications for example.

Table 4-2: Count of additional on-site parking facilities added and removed

Facilities	Count
Total on-site facilities audited in 2017	**311**
2017 on-site facilities removed during desktop research	*- 6*
On-site facilities added to 2022 data during desktop research and auditing	*67*
On-site facilities removed during 2022 auditing and data analysis	*-44*
Total on-site facilities audited in 2022	**328 (net 17 difference)**

4.2 On-site capacity

The total lorry parking capacity of all on-site parking facilities has increased from 15,012 to 16,761 – this represents an increase of 12 per cent (Table 4-3). The capacity increase is attributed in part to the net change of 17 on-site parking facilities which were recorded this time and in part to the additional spaces added to existing sites, such as Ashford Truckstop. In respect to utilisation of the capacity, utilisation has increased from 76 per cent to 83 per cent. This shows more vehicles being observed throughout the audits and greater use of on-site facilities. The concern is that the national picture of utilisation for on-site parking is very close to the 85 per cent critical utilisation level meaning that on-site parking facilities are close to operating at full capacity. Further analysis shows that some sites are already over utilised. The number of sites which are 100 per cent utilised or more in 2022 totalled 100, compared to 2017 when there were 65 sites at 100 per cent full or more, which represents a 54 per cent increase in sites utilised at 100 per cent or more over the five years.

Table 4-3: Capacity and utilisation comparison 2017 v 2022

Capacity	2017	2022	% change
On-site capacity	15,012	16,761	12%
Utilisation of this capacity	76%	83%	--

To understand the shortfall in on-site parking capacity, a comparison is made between the total on-site parking capacity (16,761) and all the vehicles observed at all on-site and off-site parking locations (21,164). It calculates that if all vehicles were to be parked in on-site facilities, there is a 27 per cent shortfall in the number of on-site parking spaces to accommodate all the vehicles observed. This is slightly worse than in 2017, when the shortfall was 24 per cent (on-site parking capacity at 15,012 and all vehicles observed at 18,670).

4.3 Vehicles observed

The total number of vehicles observed overnight across all on-site and off-site parking locations has increased by 14 per cent between 2017 and 2022. The number of these vehicles parked on-site has increased from 11,469 to 13,916 between 2017 and 2022 (Table 4-4). This represents a 21 per cent increase in the use of on-site parking facilities for overnight parking. This potentially includes some drivers who have swapped from overnighting in laybys to using on-site parking facilities instead. In 2022, there was a 12 per cent drop in the number of vehicles parked in laybys overnight. On the other hand, there was a 27 per cent increase in the number of vehicles parked in industrial estates.

There was a two per cent change in vehicles observed off-site, increasing from 7,201 vehicles in 2017 to 7,318 in 2022.

Table 4-4: Vehicles observed on-site and off-site 2017 v 2022

Vehicles observed	2017	2022	% change
Total on-site	11,469	13,916	21%
Laybys	4,709	4,157	-12%
Industrial estates	2,492	3,161	27%
Total off-site	7,201	7,318	2%
Total on-site and off-site	18,670	21,234	14%
Percentage of total parking off-site	39%	34%	--

As was the case in 2017, a higher proportion of vehicles was observed at on-site facilities, despite a two per cent increase in vehicles observed at off-site locations in 2022. 61 per cent of vehicles were observed at on-site locations in 2017 against 65 per cent in 2022, and 39 and 35 per cent observed off-site in 2017 and 2022 respectively. Several factors could be contributing to this trend such as drivers opting to park on-site for better facilities, security concerns of being more vulnerable to attack or load theft in an off-site location, and reduced layby capacity.

The total number of non-UK registered vehicles observed at on-site parking facilities has significantly increased from 2,862 in 2017 to 4,516 in 2022 (Table 4-5). This represents a 58 per cent increase. In comparison, there was a 41 per cent drop in non-UK registered vehicles located in laybys and a 21 per cent drop in vehicles located in industrial estates between 2017 and 2022. This demonstrates that non-UK drivers are favouring on-site parking.

Table 4-5: Non-UK registered vehicles observed on-site and off-site 2017 v 2022

Non-UK	2017	2022	% change
On-site parking facilities	2,862	4,516	58%
Laybys	1,207	710	-41%
Industrial estates	536	425	-21%
Total non-UK	4,655	5,651	21%
Percentage non-UK	25%	27%	6%

In terms of overall numbers, non-UK registered vehicles represent a 27 per cent (Table 4-5) share of the vehicles observed, equating to 5,651 vehicles, with UK registered

vehicles totalling 15,583 (73%). The number of non-UK registered vehicles has increased by 21 per cent from 2017 (Table 4-6), compared to an 11 per cent increase in UK registered vehicles.

Table 4-6: Vehicles observed UK v non-UK registered 2017 v 2022

UK / non-UK comparison	2017	2022	% change
Total UK registered vehicles	14,015	15,583	11%
Total non-UK registered vehicles	4,655	5,651	21%
Overall total	18,670	21,234	14%

On-site parking utilisation has been categorised into three levels, acceptable, serious, and critical. The colours in Figure 4-1 represent the utilisation levels previously described (Section 3.5):

- **Red** – 85 per cent and over (critical)
- **Orange** – 70-84 per cent (serious)
- **Green** – 69 per cent and below (acceptable)

Figure 4-1: Regional utilisation comparison 2017 v 2022

There is a clear variation across the regions in on-site parking utilisation as the comparison between 2017 and 2022 shows. On-site parking utilisation has increased in three regions including East Midlands, North West, and South East. The North West has significantly increased from 54 per cent utilised to 80 per cent. The East Midlands and the South East are now at a critical level of utilisation, having previously been serious during the 2017 audit.

4.4 Use of the DABS tool

As part of the ‘Delivering a Better Service to Freight’ (DABS) project for NH, an online dashboard tool was developed which mapped HGV flows across the SRN. It also used open-source data to map logistics infrastructure such as warehouse locations, industrial sites and retail facilities. The tool enables NH to provide a better level of customer service to the road freight sector.

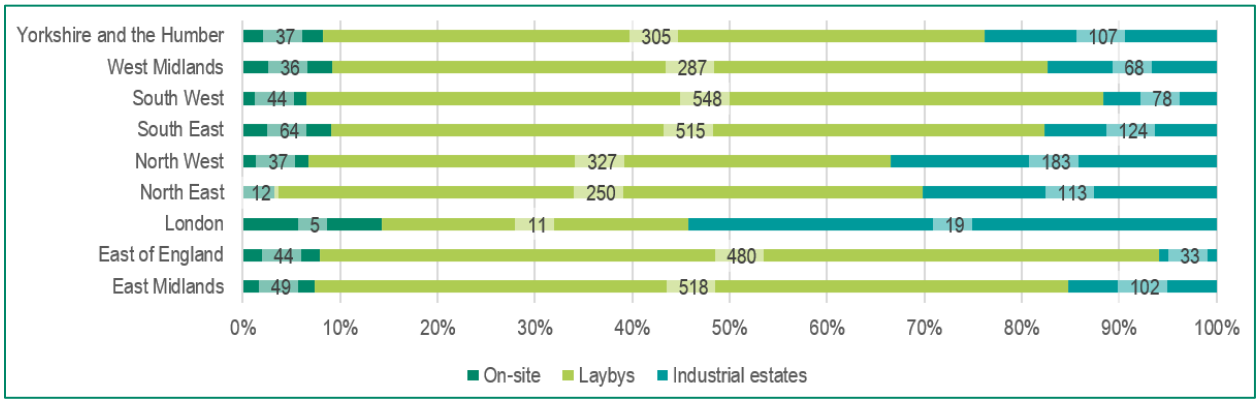
The Arup/AECOM project team utilised this dashboard tool to overlay historical lorry parking audit data from the March 2017 audit data. This existing innovative tool will be used to overlay the new survey data collected during tasks 1 to 4. This will show visually how parking behaviour has changed over time through the use of heat maps etc.

5. Regional lorry parking audit results

5.1 Regional overview – on-site parking facilities

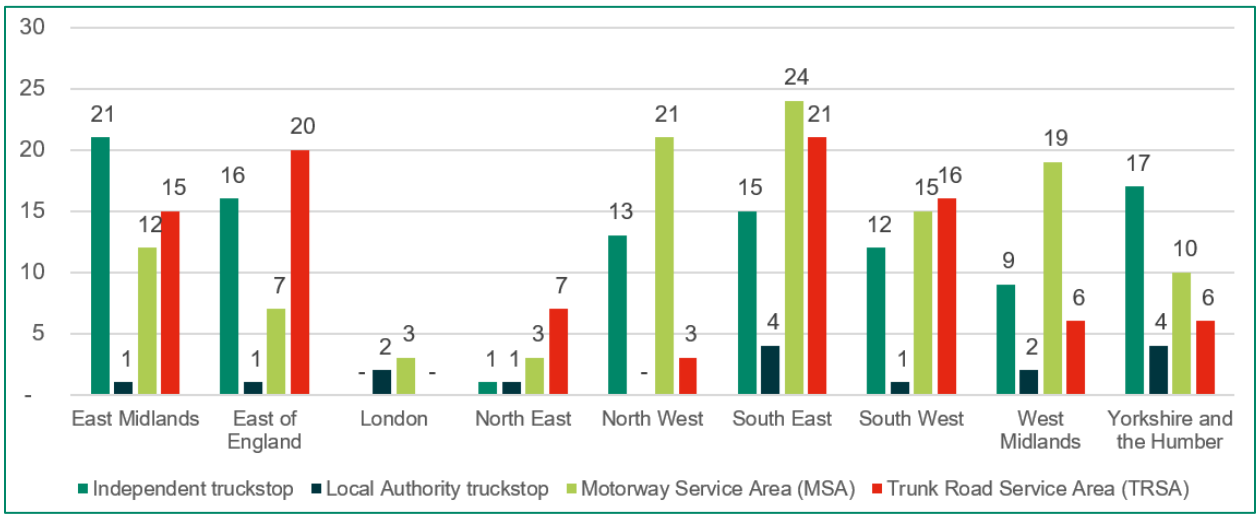
Out of the total of 328 on-site facilities the South East has the most with 64, followed by the South West and the East of England at 44 each (Figure 5-1).

Figure 5-1: Number of sites by parking site type by region



The South East, has the most MSAs in the country (24), followed by the North West (21) and the West Midlands (19) (Figure 5-2).

Figure 5-2: Number of sites by type of on-site parking facility by region



The highest numbers of independent truckstops can be found in the East Midlands (21), followed by Yorkshire and the Humber (17), and the East of England (16).

The highest numbers of TRSAs can be found in the South East (21), followed by the East of England (20), and the South West (16).

The highest numbers of local authority truckstops can be found in Yorkshire and the Humber and the South East (4 each).

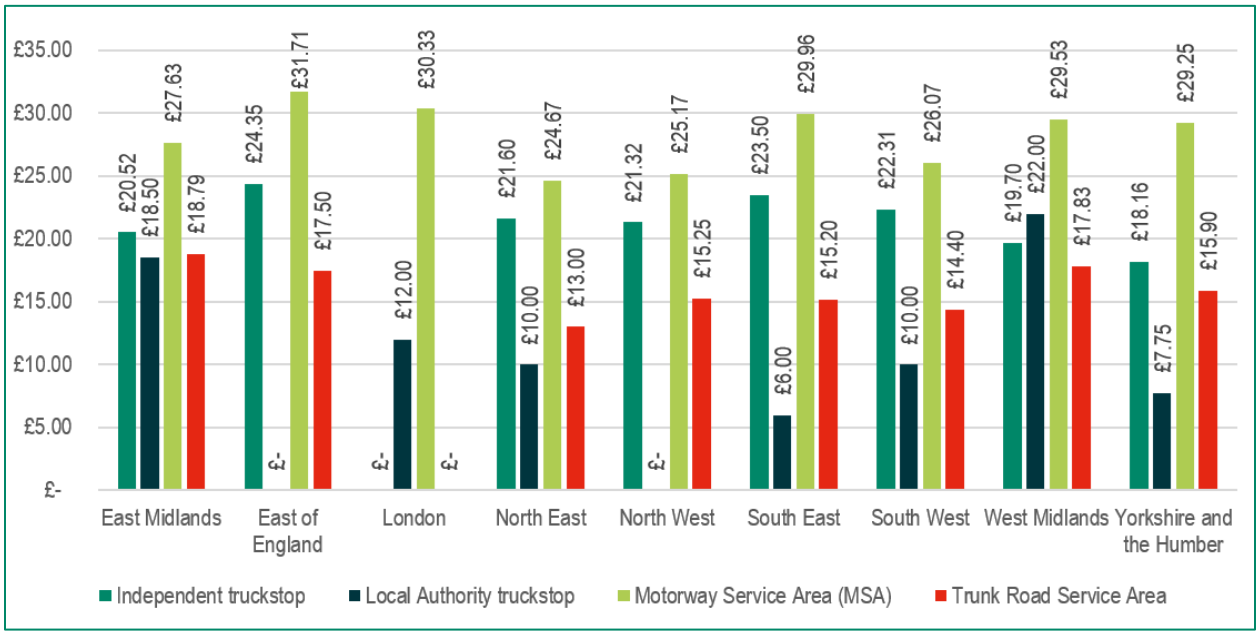
Figure 5-3 shows the average charge at all on-site parking facilities by region. The West Midlands has the highest average charge at £25.69, followed by the East of England and the South East at £25.28 and £24.86 respectively.

Figure 5-3: Average charge at all on-site parking facilities

There are some regional differences in charges and these reflect availability of staff, levels of demand, and land values. Data from Savill's research published in 2019 shows the North East and East Anglia as being cheaper per square feet – see Appendix H. It is clear that on-site parking facilities in the north charge slightly less as evidenced by the figures for Yorkshire and the North East.

Figure 5-4 denotes the average charge by on-site parking facility type. The average MSA charges are the highest across all regions. The charges are typically higher than other types of facilities partly for the reasons detailed at Section 3.2.2.

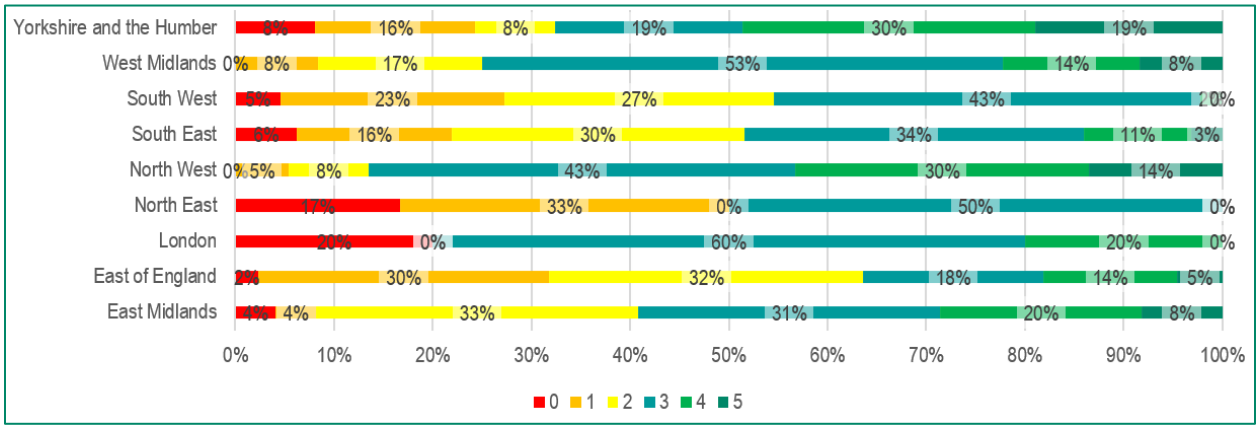
Figure 5-4: Average charge by type of on-site parking facility



The MSA average charge across all regions is £28.16, with the highest MSA averages found in the East of England (£31.71), London (£30.33), and the South East (£29.96), followed closely by West Midlands (£29.53) and Yorkshire and the Humber (£29.25).

There is a wide variety of standards of on-site parking facilities across the nine regions, based on the rating defined at Section 3.2.3 where 5 is excellent and 0 is basic. London and the North East stand out with the highest percentage of on-site parking facilities with a 0 rating. Yorkshire and the Humber and the North West have the highest proportion of on-site parking facilities with a 5 rating. West Midlands and the North West have no 0 rated sites (Figure 5-5).

Figure 5-5: Proportional split of on-site parking facilities by ratings by region



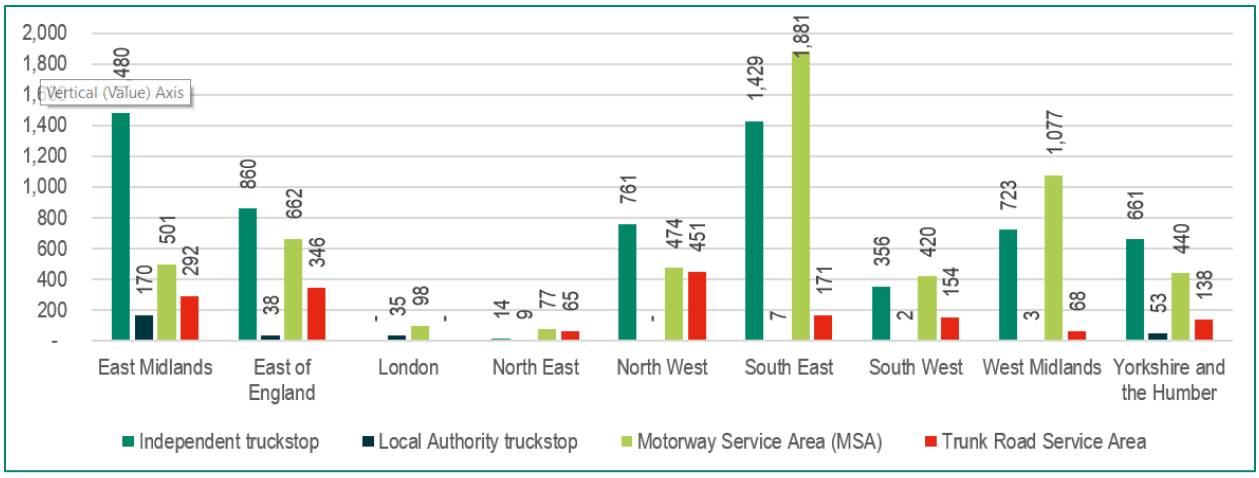
In total across England there are 15 on-site parking facilities with a 0 rating. Local authority parking sites with no facilities are typically car parks which are used for lorry parking in the evenings. The current independent truckstop classification does include locations that might have a café with toilet open in the day but not opened at night - hence the data shows that there are on-site parking locations with no facilities.

5.2 Regional overview – observed vehicles

The South East, where the most vehicles were observed at on-site parking facilities, recorded the first and third highest number of vehicles at MSAs (1,881) and independent truckstops (1,429) respectively. In comparison, only 171 vehicles were recorded at TRSAs – yet there are nearly as many TRSAs (21) as MSAs (24) - and 7 local authority truckstops (Figure 5-6). The variability in utilisation is related to the size of facilities.

East Midlands and West Midlands, with the second and third highest number of vehicles observed at on-site parking facilities respectively, had the most vehicles at independent truckstops (1,480) and MSAs (1,077) respectively. (Figure 5-6).

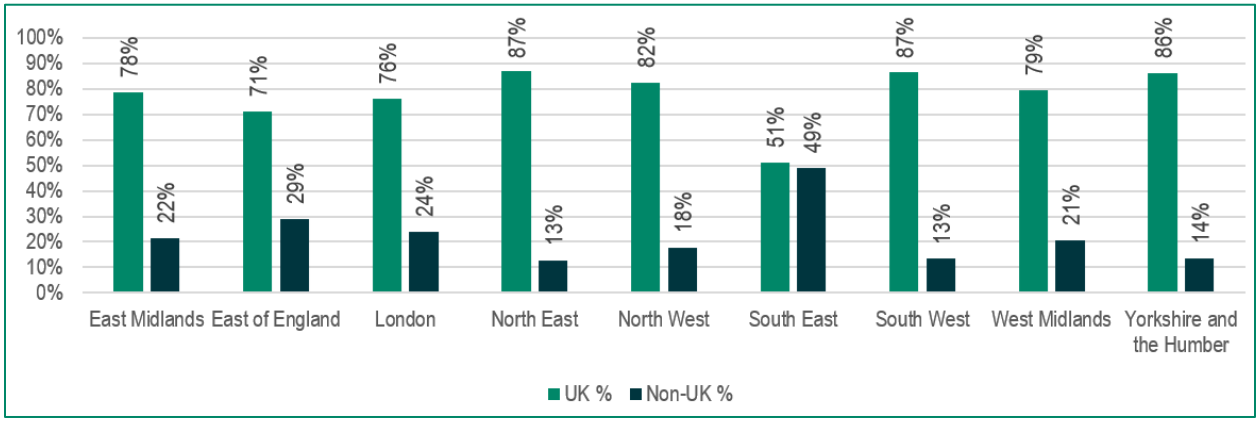
Figure 5-6: Vehicles observed by type of on-site parking facility, by region



The regions with the lowest proportion of non-UK registered vehicles recorded at all on-site and off-site parking locations were the North East and South West at 13 per cent each, and Yorkshire and the Humber at 14 per cent (Figure 5-7).

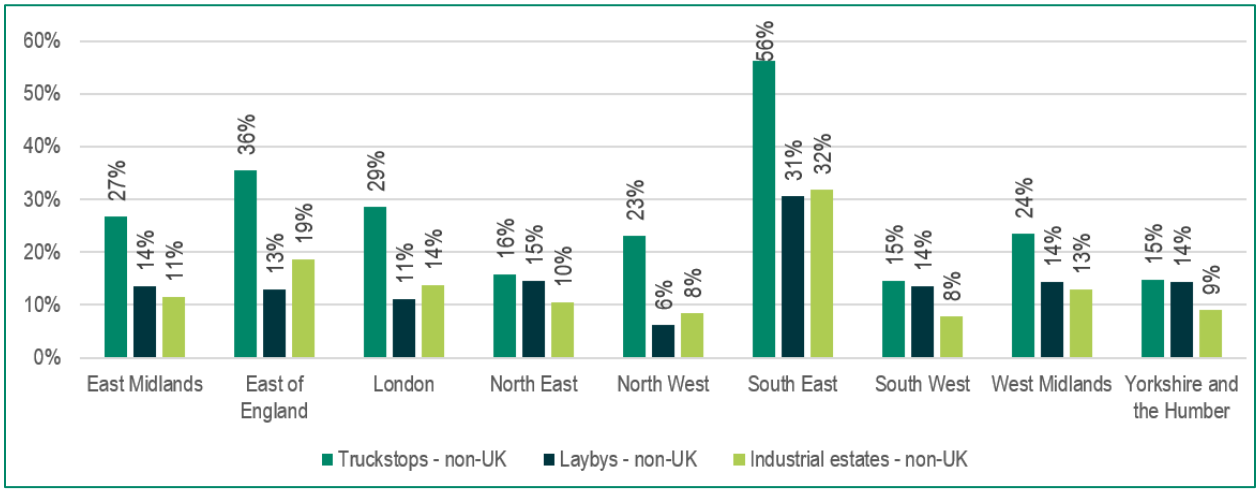
The highest proportion of non-UK registered vehicles across all on-site and off-site parking locations were found in the South East, with 49 per cent, followed by the East of England with 29 per cent, and London with 24 per cent. This is to be expected due to the large volumes of non-UK registered vehicles entering the country through South East ports and the Channel Tunnel.

Figure 5-7: UK/non-UK vehicle split at all on-site and off-site parking locations by region



In all regions, a higher proportion of non-UK registered vehicles was recorded on-site rather than off-site, with the highest concentration in the South East at 56 per cent, followed by the East of England at 36 per cent, and London at 29 per cent (Figure 5-8).

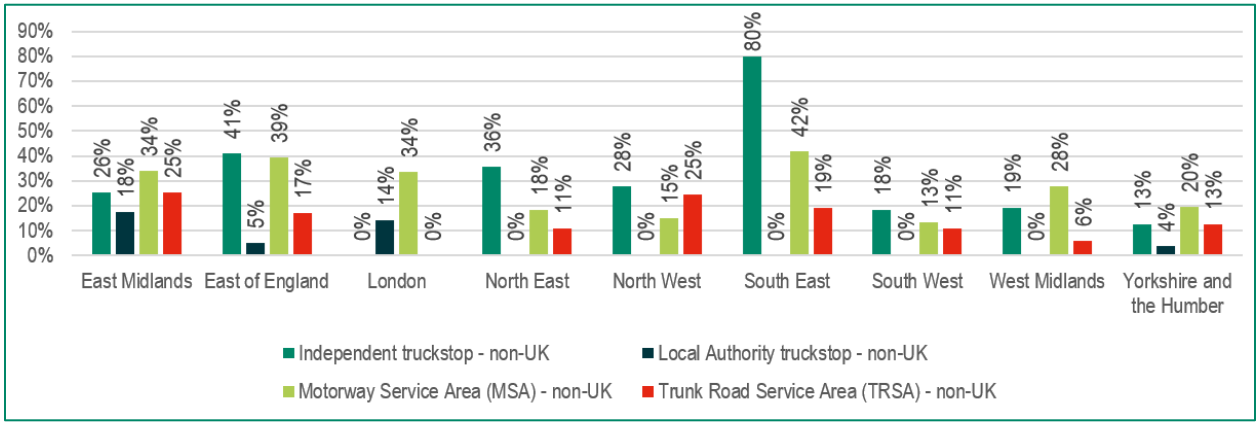
Figure 5-8: Proportion of non-UK registered vehicles on-site and off-site



Of the vehicles recorded at independent truckstops and MSAs in the South East, 80 per cent and 42 per cent respectively were non-UK registered (Figure 5-9).

The East of England is another region with a high proportion of non-UK registered vehicles, with 41 per cent and 39 per cent respectively recorded at independent truckstops and MSAs (Figure 5-9).

Figure 5-9: Proportion of non-UK registered vehicles by type of on-site parking facility



5.3 Regional overview – utilisation

All regions have on-site parking facilities that are at a critical utilisation level, as defined at Section 3.5, i.e. with utilisation levels 85 per cent or above. The East of England stands out with only 10 sites at acceptable utilisation levels, with the remainder of sites at serious (10) or critical (24) utilisation levels. The South East has 27 sites at critical utilisation levels, 11 sites at serious utilisation levels, and 26 sites at acceptable utilisation levels (Figure 5-10). Although having sites with an acceptable utilisation level in a busy region like the South East suggests that theoretically there should not be a problem, more detailed analysis shows that this "spare capacity" is not necessarily in the place where it is needed. The spare capacity is on or near the M4 and the north western part of the South East rather than being in Kent where it is most needed. In terms of travel time, it is also too far to be considered by a driver in Kent looking for a space.

Figure 5-10: Number of on-site parking facilities by site utilisation category by region

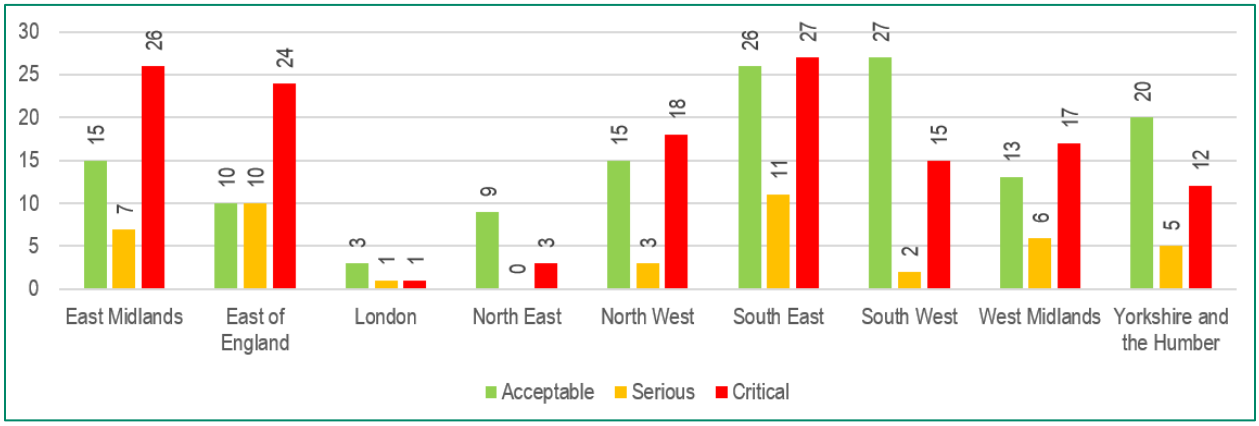
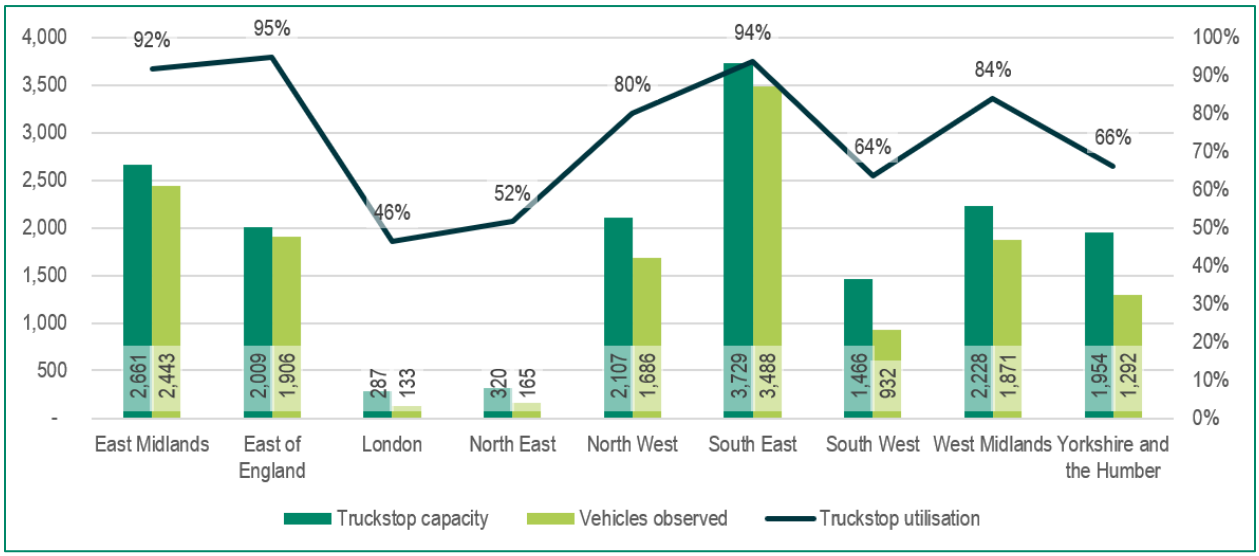


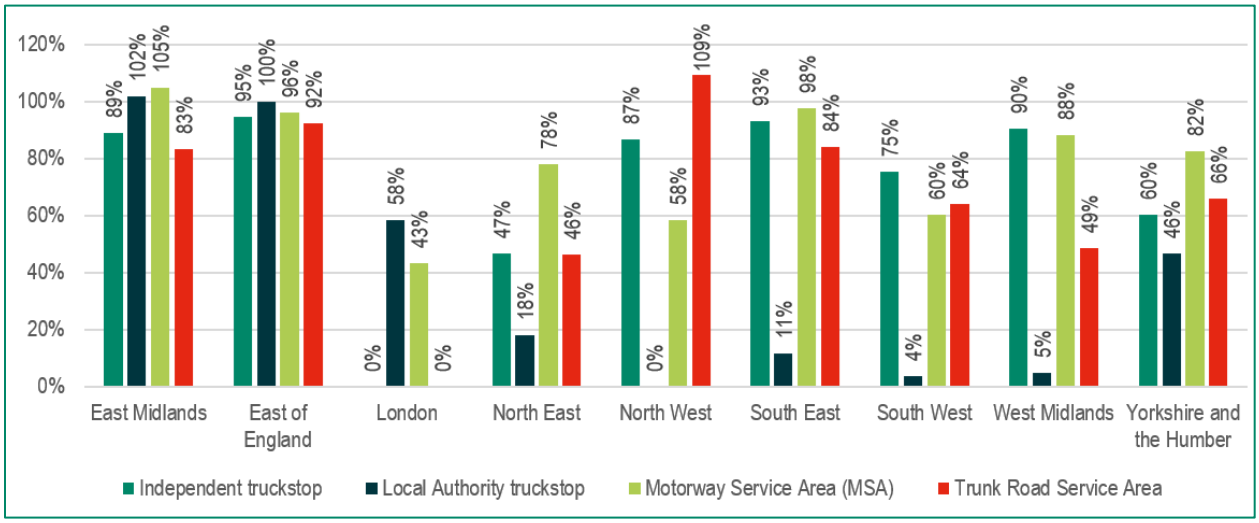
Figure 5-11 highlights the level of on-site parking utilisation against on-site parking capacity. The East of England has the highest on-site parking utilisation, with the fifth highest on-site parking capacity. The South East has the second highest on-site parking utilisation, but it also has the highest on-site parking capacity.

Figure 5-11: On-site capacity vs vehicles observed vs on-site utilisation by region



The East of England is at a critical utilisation level across all on-site parking facilities, ranging from 92 to 100 per cent utilised (Figure 5-12). Having international ports such as Felixstowe and Harwich attracts HGVs from across the whole country and especially if collecting loads destined for the North and Scotland the driver may have insufficient driving hours to make a complete round trip in a day. Hence the need for an overnight stop.

Figure 5-12: On-site utilisation by type of on-site parking facility by region



There has been much investment in building new warehouses and distribution centres in the East Midlands in recent years with expansion of Daventry International Rail Freight Terminal (DIRFT) and Magna Park and new developments at East Midlands Gateway. Several of these major developments have specified the requirement for building lorry park capacity into the site expansion plans. Both the local authority truckstops and MSA categories in the East Midlands are over capacity (i.e. more vehicles recorded as parked than there is capacity) with independent truckstops and TRSAs at critical and serious utilisation levels respectively.

The North West is over capacity for TRSAs, whilst independent truckstops are at critical utilisation levels at 87 per cent, and MSAs at acceptable levels at 58 per cent.

The South East is also at critical utilisation levels for MSAs (98 per cent) and independent truckstops (93 per cent), with TRSAs practically at critical utilisation levels at 84 per cent.

5.4 Regional summary across all on-site parking facilities

The regional on-site parking capacity is the highest in the South East, followed by the East Midlands and the West Midlands. Vehicles observed were also the highest in the South East, followed by the East Midlands. However, the third highest region for vehicles observed was the East of England, not the West Midlands. The highest on-site parking utilisation rates were the East of England at 95 per cent, followed by the South East at 94 per cent, and the East Midlands at 92 per cent – all are over the critical level of 85 per cent, and above the national utilisation level of 83 per cent.

The region with the least on-site parking utilisation level is London, with the lowest capacity and lowest number of vehicles observed, followed by the North East region (Table 5-1). London is not typical for a number of reasons, including the fact that there are several areas that did not fall within the scoping distance (within five kilometres of the SRN) and that due to having the congestion charge and the low emission zone, many lorry drivers do not risk stopping for any longer than necessary to make their deliveries/collections within the zones as they may end up having to pay two days' worth of charges.

Comparing the on-site parking capacity to the number of vehicles observed across all on-site and off-site parking locations provides an indication of the number of excess vehicles that cannot park at on-site parking facilities. Table 5-1 presents the difference between capacity and vehicles observed. In England, there is a total of 4,473 excess vehicles against capacity. The highest regions being the East Midlands (1,191), the South East (1,132) and the East of England (721). These indicate the regions in need of more on-site

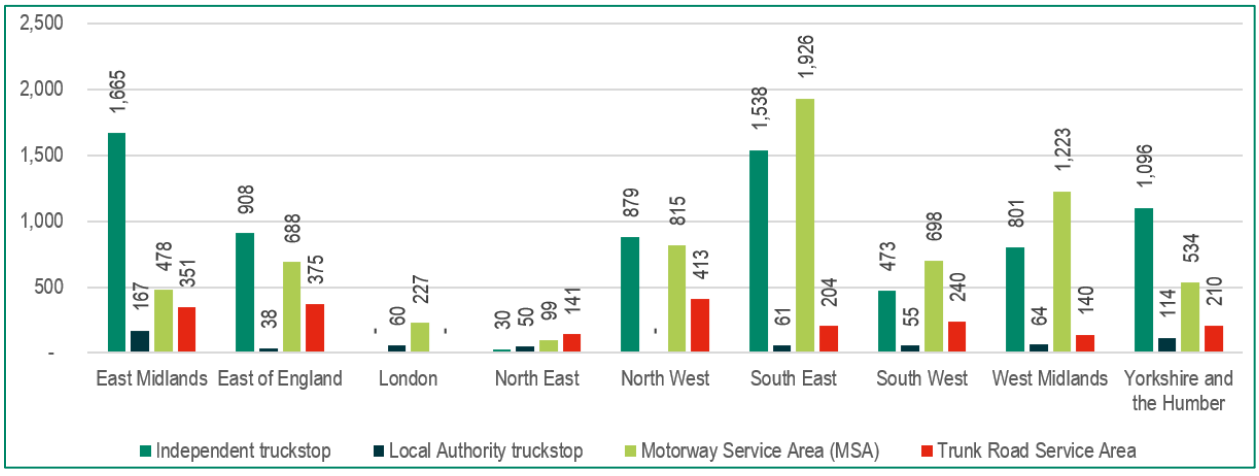
parking capacity, particularly important for these regions given their proximity to gateways to and from England. The lowest regions (i.e. with the least excess vehicles) include London (-94), meaning the region has spare capacity, and Yorkshire and the Humber (20).

Table 5-1: Overall number of sites, vehicles observed, capacity, excess vehicles and utilisation across all types of sites

Region	Number of on-site facilities	Vehicles observed on-site	Overall on-site capacity	Excess vehicles	Utilisation
East Midlands	49	2,443	2,661	1,191	92%
East of England	44	1,906	2,009	721	95%
London	5	133	287	-94	46%
North East	12	165	320	294	52%
North West	37	1,686	2,107	564	80%
South East	64	3,488	3,729	1,132	94%
South West	44	932	1,466	187	64%
West Midlands	36	1,871	2,228	458	84%
Yorkshire and the Humber	37	1,292	1,954	20	66%
England	328	13,916	16,761	4,473	83%

The South East was found to have the highest on-site parking capacity compared with other regions. The South East also has the highest MSA capacity. East Midlands was found to have the highest independent truckstop capacity (Figure 5-13). The North East and London were found to have low capacity levels (Figure 5-13), but they have the lowest utilisation levels.

Figure 5-13: On-site parking capacity by type of on-site parking facility by region



5.5 Regional breakdown – all parking sites

This section provides a breakdown by region.

The first table provides a regional overview, detailing the overall number of sites, capacity, total number of vehicles parked, percentage of non-UK registered vehicles, and on-site and off-site parking. It also shows the excess vehicles, which is the total number of vehicles parked minus the capacity.

The second table provides a ranking of on-site parking facilities for the region. The ranking of 1-5 is detailed at Section 3.2.3 Table 3-2.

5.5.1 East Midlands

Table 5-2: East Midlands regional overview

East Midlands	On-site	Laybys	Industrial estates	Total
Number of sites	49	518	102	669
Capacity	2,661	-	-	-
Total number of vehicles parked	2,443	866	543	3,852
Non-UK registered vehicles (%)	27%	14%	11%	22%
Utilisation	92%	-	-	-
Excess vehicles	-	-	-	1,191

Table 5-3: East Midlands – ranking of on-site parking facilities

Region – East Midlands	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
East Midlands	4%	4%	33%	31%	20%	8%	£22.44
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.2 East of England

Table 5-4: East of England regional overview

East of England	On-site	Laybys	Industrial estates	Total
Number of sites	44	480	33	557
Capacity	2,009		-	-
Total number of vehicles parked	1,906	636	188	2,730
Non-UK registered vehicles (%)	36%	13%	19%	29%
Utilisation	95%	-	-	-
Excess vehicles	-	-	-	721

Table 5-5: East of England – ranking of on-site parking facilities

Region – East of England	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
East of England	2%	30%	32%	18%	14%	5%	£25.28
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.3 London

Table 5-6: London regional overview

London	On-site	Laybys	Industrial estates	Total
Number of sites	5	11	19	35
Capacity	287	-	-	-
Total number of vehicles parked	133	9	51	193
Non-UK registered vehicles (%)	29%	11%	14%	24%
Utilisation	46%		-	-
Excess vehicles	-	-	-	94

Table 5-7: London – ranking of on-site parking facilities

Region – London	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
London	20%	0%	0%	60%	20%	0%	£23.00
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.4 North East

Table 5-8: North East regional overview

North East	On-site	Laybys	Industrial estates	Total
Number of sites	12	250	113	375
Capacity	320	-	-	-
Total number of vehicles parked	165	151	298	614
Non-UK registered vehicles (%)	16%	15^	10%	13%
Utilisation	52%		-	-
Excess vehicles	-	-	-	294

Table 5-9: North East – ranking of on-site parking facilities

Region – North East	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
North East	17%	33%	0%	50%	0%	0%	£16.38
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.5 North West

Table 5-10: North West regional overview

North West	On-site	Laybys	Industrial estates	Total
Number of sites	37	327	183	547
Capacity	2107	-	-	-
Total number of vehicles parked	1686	311	674	2671
Non-UK registered vehicles (%)	23%	6%	8%	18%
Utilisation	80%	-	-	-
Excess vehicles	-	-	-	564

Table 5-11: North West - ranking of on-site parking facilities

Region – North West	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
North West	0%	5%	8%	43%	30%	14%	£23.40
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.6 South East

Table 5-12: South East regional overview

South East	On-site	Laybys	Industrial estates	Total
Number of sites	64	515	124	703
Capacity	3729	-	-	-
Total number of vehicles parked	3488	974	399	4861
Non-UK registered vehicles (%)	56%	31%	32%	49%
Utilisation	94%	-	-	-
Excess vehicles	-	-	-	1132

Table 5-13: South East - ranking of on-site parking facilities

Region – South East	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
South East	6%	16%	30%	34%	11%	3%	£24.86
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.7 South West

Table 5-14: South West regional overview

South West	On-site	Laybys	Industrial estates	Total
Number of sites	44	548	78	670
Capacity	1466	-	-	-
Total number of vehicles parked	932	479	242	1653
Non-UK registered vehicles (%)	15%	14%	8%	13%
Utilisation	64%	-	-	-
Excess vehicles	-	-	-	187

Table 5-15: South West – ranking of on-site parking facilities

Region – South West	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
South West	5%	23%	27%	43%	2%	0%	£22.47
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.8 West Midlands

Table 5-16: West Midlands regional overview

West Midlands	On-site	Laybys	Industrial estates	Total
Number of sites	36	287	68	391
Capacity	2228	-	-	-
Total number of vehicles parked	1871	377	438	2686
Non-UK registered vehicles (%)	24%	14%	13%	21%
Utilisation	84%	-	-	-
Excess vehicles	-	-	-	458

Table 5-17: West Midlands - ranking of on-site parking facilities

Region – West Midlands	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
West Midlands	0%	8%	17%	53%	14%	8%	£25.69
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

5.5.9 Yorkshire and the Humber

Table 5-18: Yorkshire and the Humber regional overview

Yorkshire and the Humber	On-site	Laybys	Industrial estates	Total
Number of sites	37	305	107	449
Capacity	1954	-	-	-
Total number of vehicles parked	1292	354	328	1974
Non-UK registered vehicles (%)	15%	14%	9%	14%
Utilisation	66%	-	-	-
Excess vehicles	-	-	-	20

Table 5-19: Yorkshire and the Humber - ranking of on-site parking facilities

Region – Yorkshire and the Humber	Proportion of on-site parking facilities ranked at each level						Average Price (£)
Levels of Ranking	0	1	2	3	4	5	
Yorkshire and the Humber	8%	16%	8%	19%	30%	19%	£20.48
England	**5%**	**15%**	**22%**	**35%**	**16%**	**7%**	**£23.15**

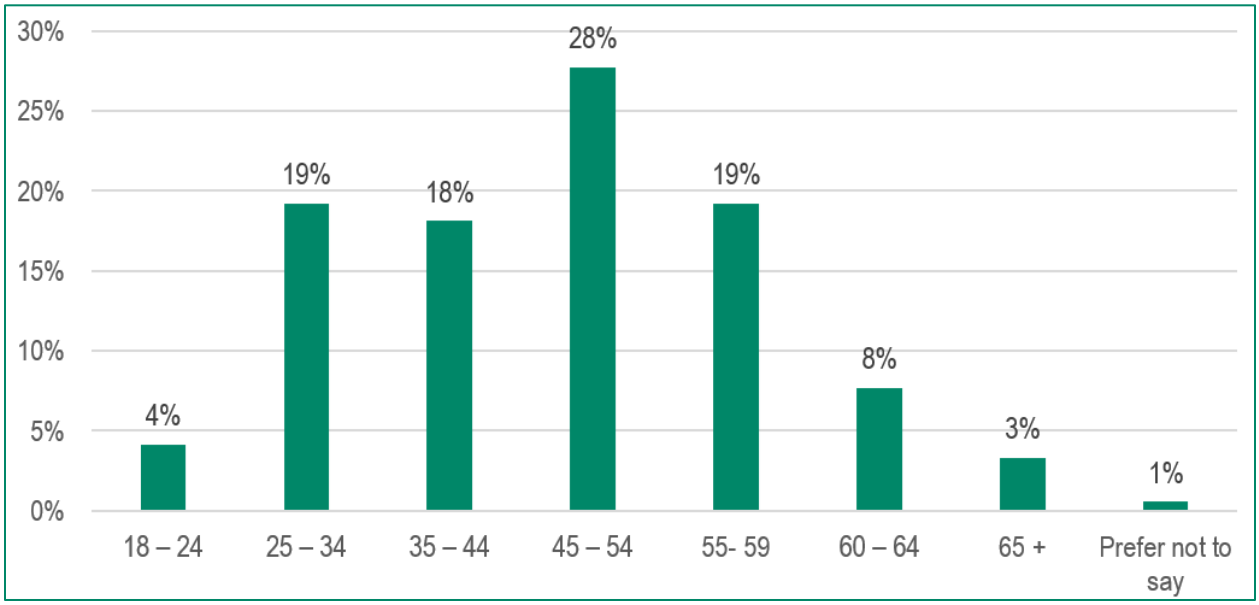
6. Industry and stakeholder engagement

6.1 Lorry parking and driver welfare survey

As part of this study, an online driver survey was developed (Appendix F) to gauge lorry drivers' views on different aspects of parking and welfare. The online survey, which was distributed to MSAs as detailed at Section 2.8.2, was completed by a total of 364 lorry drivers and the findings are summarised in this section.

The largest proportion of respondents was in the 45-54 age category with 101 respondents (28 per cent). The smallest proportions were seen in the 18-24 and 65+ age groups with 15 (four per cent) and 12 (three per cent) respondents respectively, as can be seen at Figure 6-1.

Figure 6-1: Age group of respondents (Base (all respondents): 364)



As can be seen at Figure 6-2 and Figure 6-3, the large majority of respondents was male (335) and from English/Welsh/Scottish/Northern Irish/British origin (344), representing 92 per cent and 95 per cent of the total respectively.

Figure 6-2: Gender identity of respondents (Base: 364)

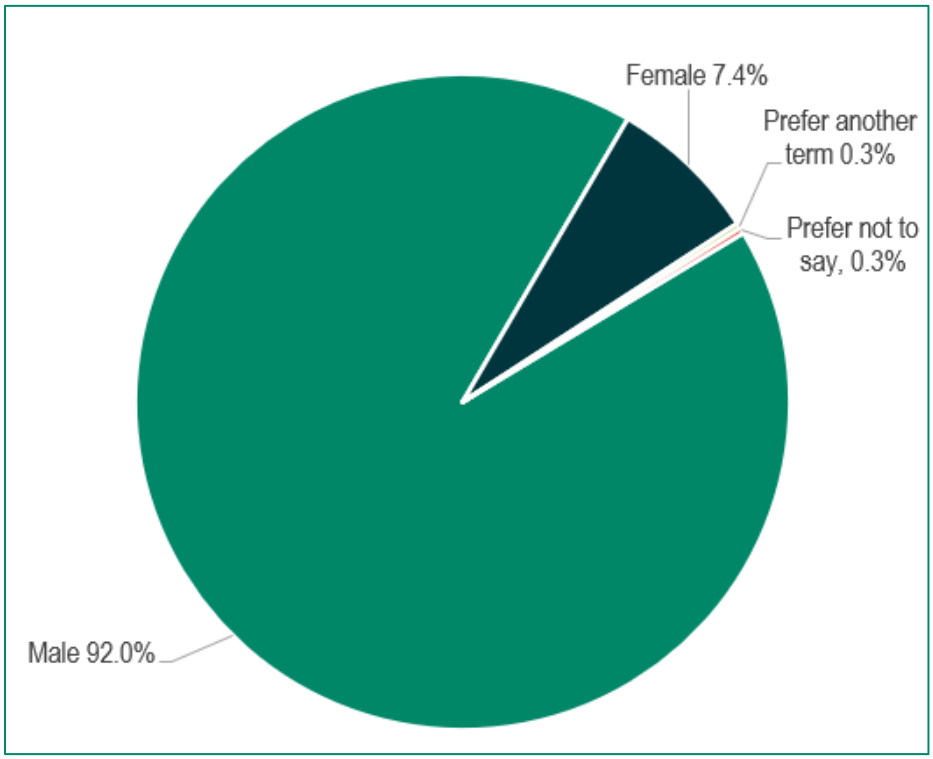
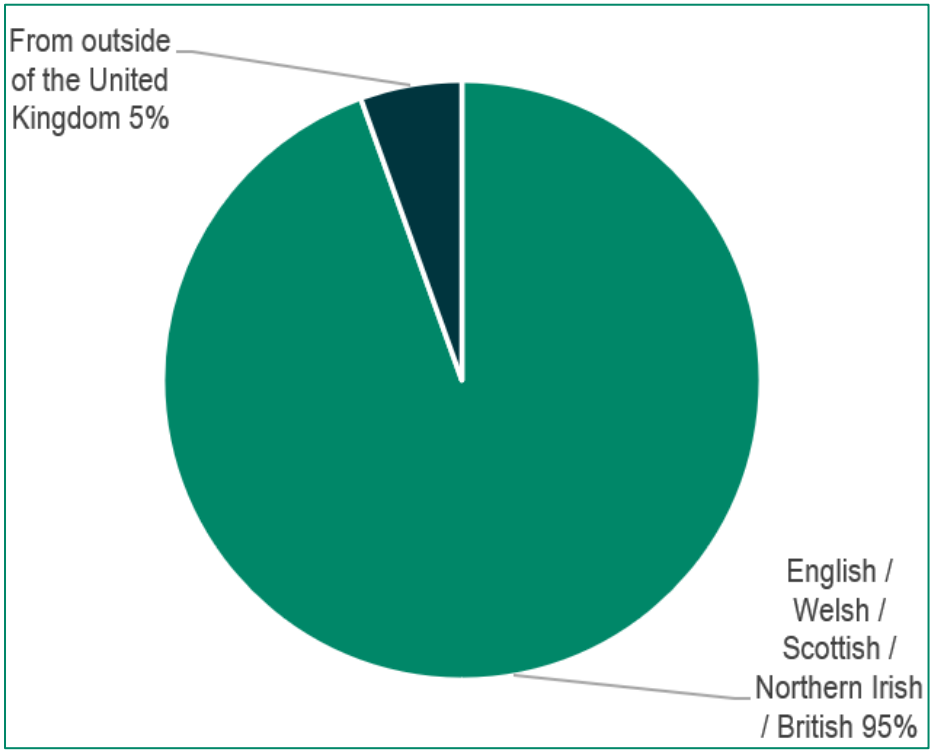
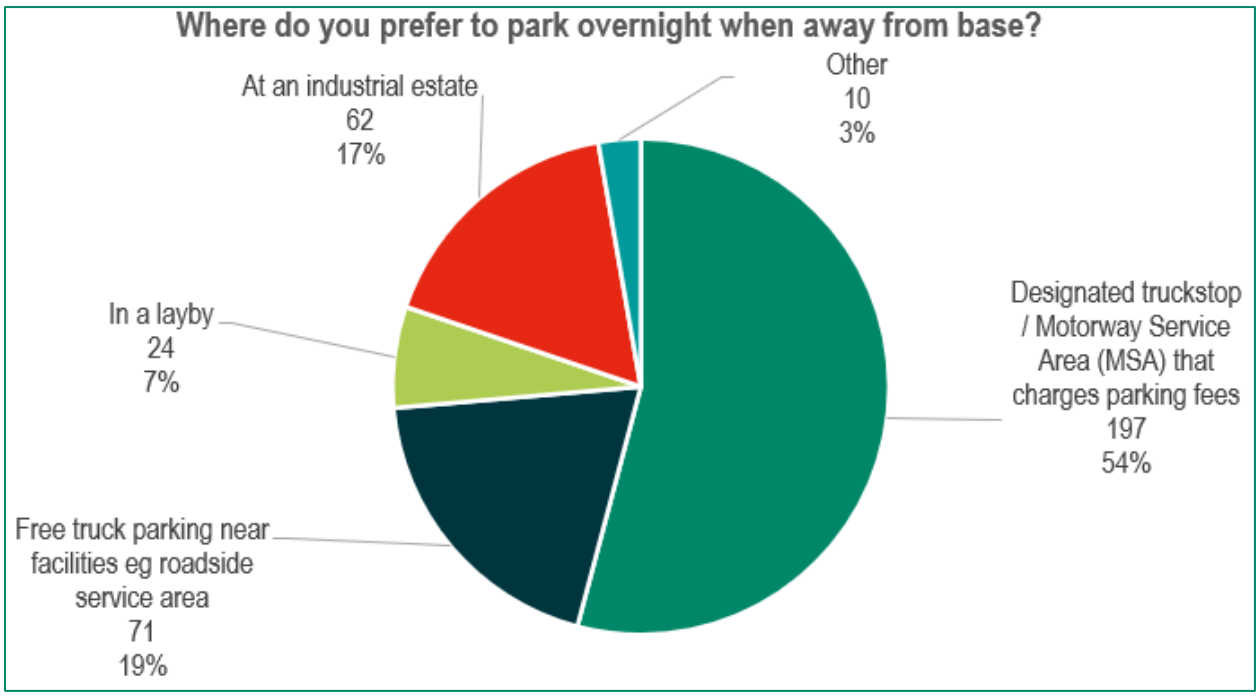


Figure 6-3: Nationality of respondents (Base: 364)



When asked where they prefer to park when away from base, 54 per cent of the drivers (197) responded that they prefer to park in a designated truckstop/MSA that charges parking fees. 24 per cent of drivers stated that they prefer to park in industrial estates and laybys, which is a higher percentage than for free lorry parking near facilities (e.g. roadside service area) with 19 per cent of drivers selecting this option – see Figure 6-4.

Figure 6-4: Driver preference for overnight parking when away from base (Base: 364)



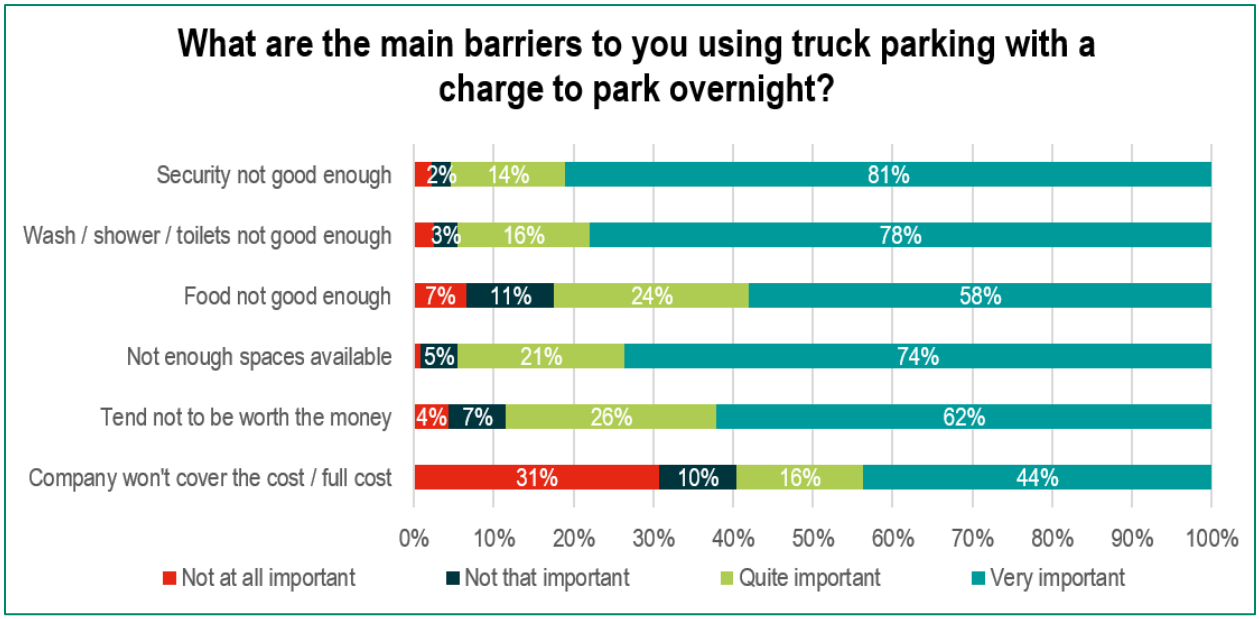
When asked about what the barriers are to them using lorry parking with a charge, security not being good enough is the highest concern for the respondents, with 95 per cent of them responding that it is very important (81 per cent) or quite important (14 per cent) to them. Also of main concern for the respondents were the wash/shower/toilets not being good enough and not enough spaces being available with 95 per cent of drivers responding in both cases that this is very important or quite important.

Not being worth the money was also a high barrier for drivers, with 88 per cent stating this as being very important (62 per cent) or quite important (26 per cent). 83 per cent of drivers selected food not being good enough as very important (58 per cent) or quite important (25 per cent).

Companies not covering the cost was the least important, with 31 per cent of drivers stating that it is not at all important. However, opinions seem to be divided on this

question as over half the drivers (60 per cent) responded that it is either very important (44 per cent) or quite important (16 per cent). These results can be seen at Figure 6-5.

Figure 6-5: Barriers to drivers using lorry parking with a charge to park overnight (Base:364)



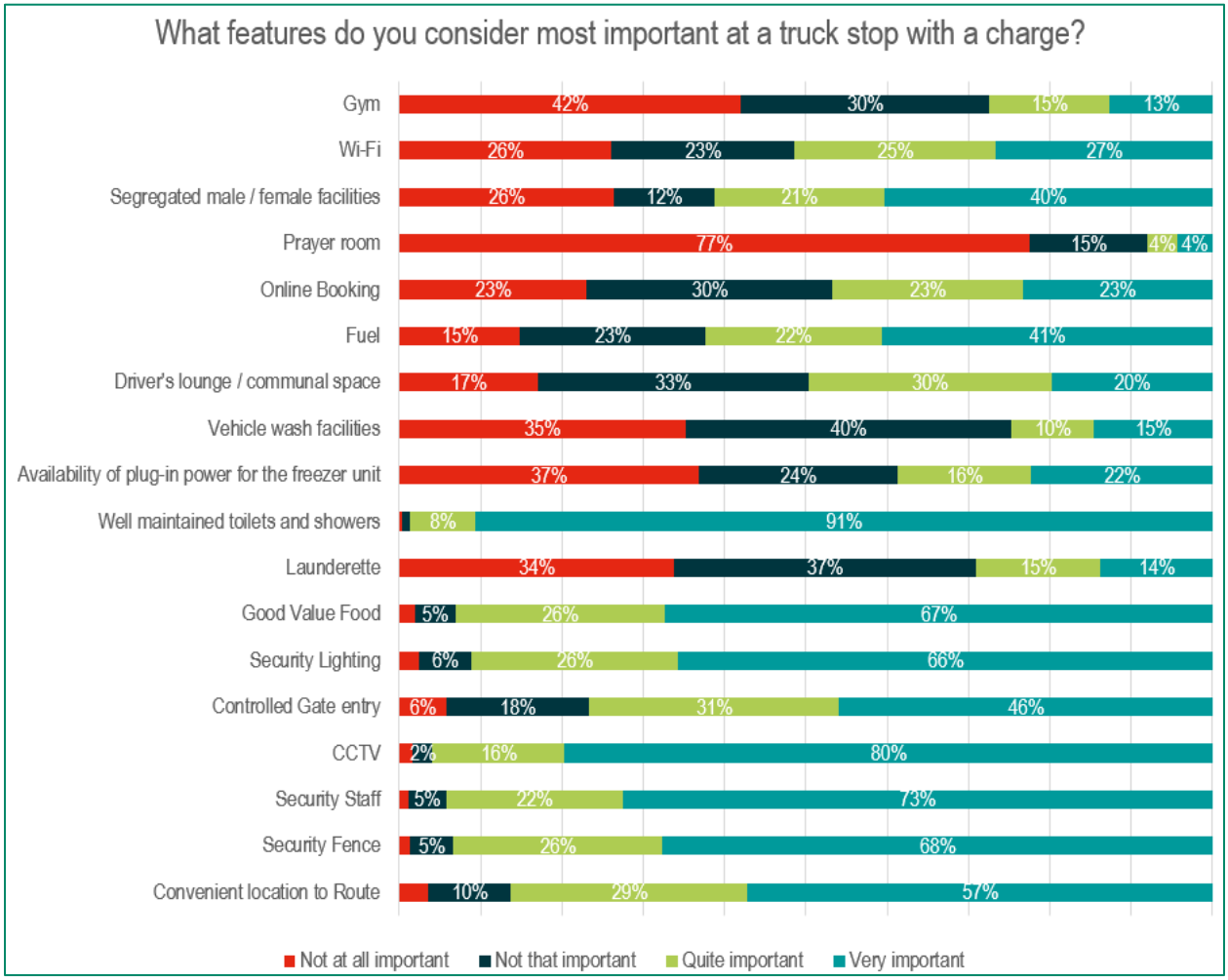
Drivers were asked which features they consider most important when parking at an on-site facility with a charge – Figure 6-6. Well maintained toilets and showers seems to be the key feature of an on-site facility with a charge for the respondents, with 99 per cent of drivers selecting this as very important (91 per cent) or quite important (8 per cent).

All security-related features such as CCTV, security staff, and security fencing were selected as being very important or quite important, with a combined very important/quite important percentage of 96 per cent, 95 per cent, and 94 per cent respectively.

A combined 28 per cent of drivers stated that a gym is very important/quite important to them, and eight per cent thought that a prayer room is very important/quite important to them. This is reflective of the views of the current driver demographic who responded. Potentially in trying to attract more drivers from ethnic backgrounds and younger staff who want to keep fitter than the previous generation, attitudes to both of these may change with time.

Segregated male and female facilities were deemed very important by 40 per cent and important by 21 of respondents. This should be read in the context that seven per cent of respondents were female.

Figure 6-6: Important features at on-site parking facilities with a charge (Base: 364)

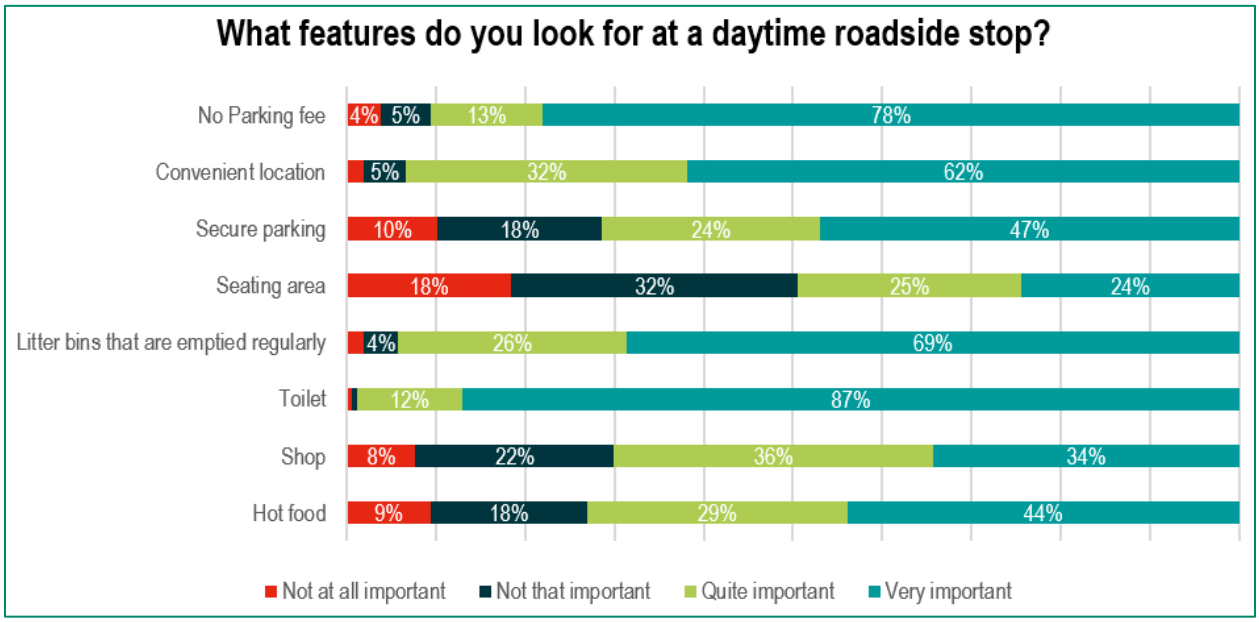


As with overnight parking, toilets were the most important feature for the respondents with regards to daytime parking, with 99 per cent of respondents selecting this as very important (87 per cent) or quite important (12 per cent) when asked about the features they look for in a daytime roadside stop (Figure 6-7).

95 per cent of drivers selected litter bins that are emptied regularly as very important (69 per cent) or quite important (26 per cent), whilst 94 per cent of drivers selected convenient location as very important (62 per cent) or quite important (32 per cent).

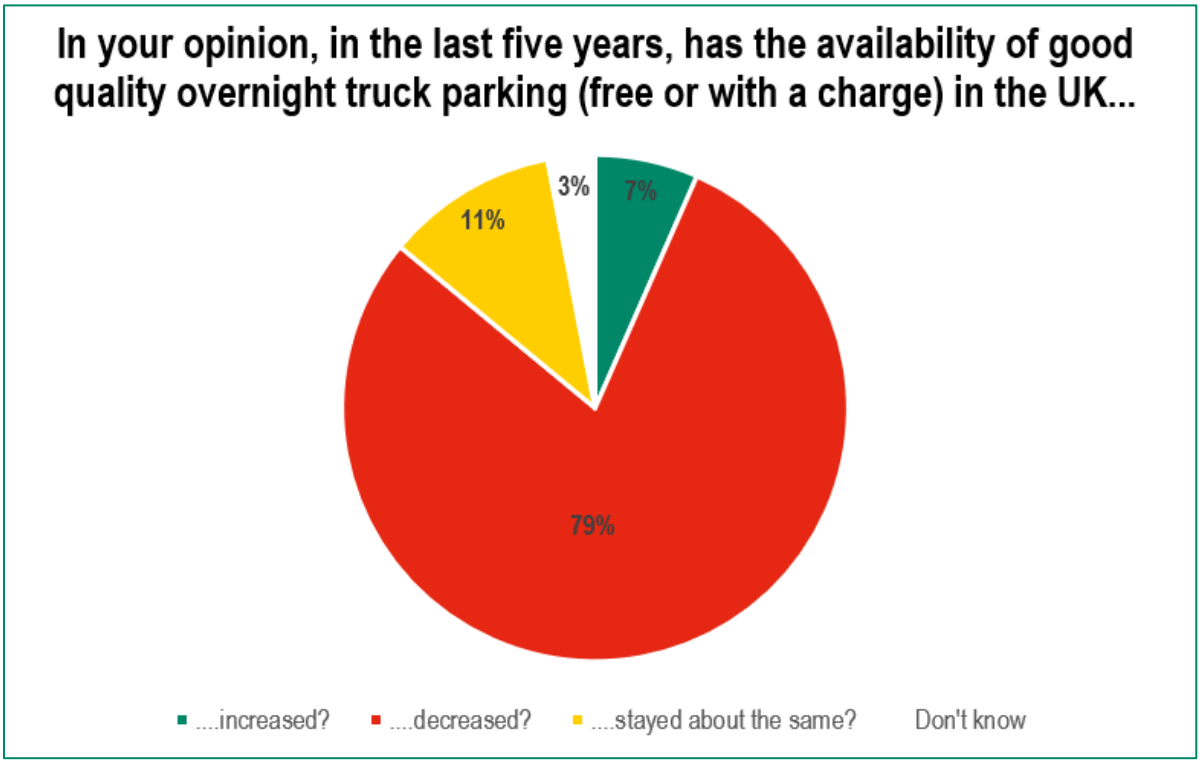
Seating area was seen as not at all important by 18 per cent of respondents.

Figure 6-7: Important features at daytime roadside stops (Base: 364)



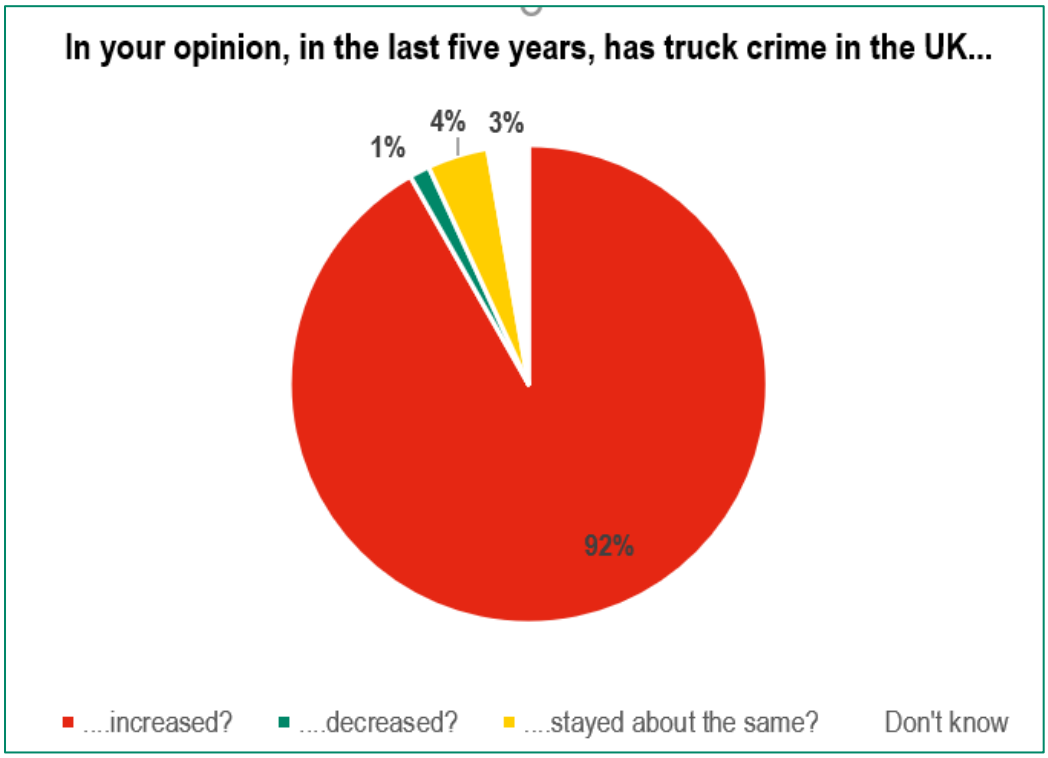
The vast majority of drivers, at 79 per cent, believe that the availability of good quality lorry parking (free or with a charge) has decreased in the last five years in the UK – Figure 6-8.

Figure 6-8: Availability of good quality overnight lorry parking (Base: 364)



Similarly, an overwhelming 92 per cent of drivers responded that they believe truck crime has increased in the UK in the last five years – Figure 6-9

Figure 6-9: Truck crime (Base: 364)



6.2 Driver focus group

AECOM undertook a 90-minute focus group with drivers at Lymm truckstop, located at the intersection of the M6/M56 in Cheshire, on Wednesday 18 May at 6.00pm in order to gain a more in-depth understanding around the key questions from the quantitative driver survey (Appendix F).

6.2.1 Recruitment

Two of AECOM's experienced recruiters were situated at Lymm Truckstop between 2.00pm and 6.00pm on the day of the group to engage with drivers parking up for the evening and to invite them to take part in the focus group.

Both recruiters were briefed to understand the scope of the project, how to explain it to the drivers, and what incentive would be provided if drivers attended. Recruiters undertook a small screening questionnaire to ensure those attending the group represented a variety of types of journey and origins and destinations (where they were driving to and from), as well as amount of driver experience.

HGV drivers are predominately male. During the recruitment period, the recruiters encountered four female drivers, however none of them could be persuaded to take part in the group. Therefore, there were no female participants.

6.2.2 Respondent profile

In total 11 drivers were recruited for the group and 10 drivers turned up to take part in the group.

- All 10 drivers were male
- The ages of the drivers ranged from 25 to late 50s
- About half of the drivers were predominantly UK based, whilst the other half also did some driving throughout Europe
- All drivers were White British
- Nights away for work varied from one or two nights a week to weeks away at a time
- Three had to pay for parking themselves, three had subsidised parking and the rest had their parking paid for by their employers

Although respondents reflected a wide range of different types of drivers, the small number means the sample is not representative of the driver population overall.

6.2.3 Group findings

Respondents were asked what they thought defined a good on-site parking facility and they mentioned a range of features:

- Showers (e.g. multiple working facilities, clean)
- Good food (e.g. range of options available, not just fast food options)
- Available spaces to park
- Social spaces (e.g. areas to sit, comfort areas)
- Cost of parking (e.g. reasonable value for money for facilities available)

However, many of the respondents noted that there are a number of things that makes a poor facility, including:

- Poor value for money
- Lack of space available for parking
- Poor food options (e.g. fast food only)
- Lack of security
- Poor shower facilities

One respondent quoted that, “Drivers just want to be treated like human beings and have proper facilities.” However, they feel this is not always the case.

Drivers stated on-site parking facilities in the UK do not give them value for money but what is considered ‘value for money’ differed amongst the groups depending on:

- Whether they paid for it themselves or their company did
- What facilities they do or don’t want access to

Given the experience in the group from drivers who drive a period of their time in Europe, there was a strong feeling within the group that European facilities were good (even basic ones) and the UK ones are poor in comparison. Many mentioned that the EU sites are consistent, lower priced, on huge areas of land with lots of available spaces, and good clean facilities. They never have to worry about getting a space and being able to use the facilities there.

One of the biggest concerns from drivers is the lack of parking spaces available as it makes it very difficult for drivers to plan ahead where to park as part of their journey.

The consensus in the group was that their preference is for independent truckstops over MSAs as better facilities, better quality of food, and overall better value for money. They did also point out that the overall offer (e.g. the combined range of facilities, availability of space, and price) when paying to park at MSAs needs to be better and more consistent across all locations.

Some drivers choose to park off-site rather than at MSAs as it is just as convenient and free. Also, they felt MSAs are not any more secure than laybys.

When asked about responsibility, all the respondents pointed out that they feel it is the government’s responsibility to improve this situation. However, they also feel that on-site parking facility management should plan more services and rest areas with lorries in mind rather than an afterthought after the general public.

Drivers also felt that attendants needed to help with parking efficiency, improve security and assist with any issues.

Even though no female drivers were in attendance at the group, a couple of the drivers did point out that sometimes it is even harder for female drivers in the industry as they are a minority so sometimes their facilities are even less readily available or up to the same standard as the male facilities as they are seen as the dominant gender who need to use the facilities.

6.3 Stakeholder engagement

On Thursday 16 June 2022, a two-hour discussion group was held virtually using MS Teams with key industry stakeholders to discuss lorry parking.

6.3.1 Attendees

As noted in Section 2, a number of key stakeholders were invited to attend the workshop. The following stakeholders attended alongside DfT and AECOM representatives:

Table 6-1: Workshop stakeholder attendees

Name	Organisation	Name	Organisation
Darren Smith	Ashford Int'l Truckstop	Steve Clark	British Parking Association (BPA)
Andrew Smith	Carter Jonas	Samuel Turner	Carter Jonas
Mike Wilson	Carter Jonas	Mike Heaton	Certas Energy
Jolyon Drury	CILT	Kevin Richardson	CILT
Kevin Bartless	Extra Services	Neil Gordon	Extra Services
Ash Evans	Formula Services	Michelle Gardner	Logistics UK
Swati Mittal	Midlands Connect	Paul Davison	Midlands Connect
Paul Lipton	Moto	Jess Lockwood	Moto
Emma Teuten	National Highways	Michael Dawber	NaVCIS
Sarah Piling	Roadchef	Jennifer Smith	Smith Jenkins
Mark Garner	SNAP	Nick Long	SNAP
Rob Rose	SNAP	Owen Wilson	Transport for the North

After an introduction to the session and a safety moment, the workshop moved onto the barriers currently perceived to be in place around driver facilities.

NaVCIS also provided the following update on truck crime:

NaVCIS supports 45 policing operations and four years ago started gathering more data to be able to map the threat. In 2021 it received 4,434 notifications of UK cargo crime, 971 of those occurred at MSAs and 2,149 of those occurred in independent parking locations. It assisted with 194 arrests.

There are a number of organised crime groups in the UK that are causing the most threat. They exist in West Yorkshire, the West Midlands, Essex, Liverpool and the East Midlands. They know which hauliers have got contracts to move certain goods around the country, and on which routes and where rest breaks are taken. Thus specific

commodities are targeted. Transported Asset Protection Association (TAPA) also maps European truck crime.

For recording purposes, truck crime is simply categorised as a theft from a motor vehicle and the penalties tend to be relatively light. Criminals try and avoid direct confrontation because they know that if anyone is assaulted, robbed or hijacked, the chances are the police response will be escalated to either a Criminal Investigation Department (CID) squad or a major investigation team and the chances of getting apprehended and prosecuted go up dramatically.

6.3.2 Barriers to improving and increasing on-site parking facilities

All respondents on the workshop were asked to engage and provide what they perceived to be the barriers for improving and increasing on-site parking facilities (Figure 6-10). Using Mentimeter, an anonymous engagement app, all respondents could provide a number of words or phrases to answer this question, in their opinion.

Figure 6-10: What are the barriers for improving and increasing on-site facilities?

'Planning' was the top answer to come out of the word cloud and more people said this word than any other. In addition, a number of stakeholders also referenced words or phrases similar to this such as 'planning approval', 'planning regs' and 'local planning authority'. Land/site availability was mentioned by four people and the cost of land by

two attendees. ‘Cost’, ‘local authorities’ and ‘green belt’ were also key words or phrases to be mentioned by more than one stakeholder within the word cloud. Concern over commercial viability, lack of profits and the need to get a return on investment was a common theme.

6.3.3 National audit overview

The AECOM freight team then provided an overview of the DfT 2022 national lorry parking audit results. The presentation included the methodology used, locations visited, sites audited and information about the data collected.

As part of this discussion, AECOM identified two sites, one which had been closed and one which had been opened since the previous national audit took place in 2017, to discuss the impact these changes may be having on the network.

Orwell Lorry Crossing Park on the A14 has closed. AECOM outlined the “lost” facilities, the reasons why the lorry park has closed, and the potential impact on the area.

However, AECOM also outlined an example of a new site at Welcome Break Rothwell, also on the A14 but this time in Northamptonshire, highlighting the facilities there and what it adds to the network, including:

- 200+ lorry parking spaces
- Bar
- Gaming area
- Coffee lounge
- Gym
- Laundrette
- Shop
- Female and male showers
- Secure parking

This site was highlighted by AECOM due to it being a noteworthy move by a MSA operator into opening facilities on trunk roads, which is helping meet a severe shortage of lorry parking in the area and providing a range of facilities above what is typically found in other lorry parking areas.

One or two stakeholders on the call noted at this point that this was the model that operators are trying to follow for the future, but policy and approvals are holding up additional locations like this one being rolled out elsewhere in the country.

6.3.4 Lorry parking standards

Next, using Mentimeter again, the participants were asked to input their opinions on what the key aspects of a lorry parking standard are and the below word cloud was created from their responses (Figure 6-11).

Figure 6-11: What are the key aspects of on-site parking standard?

'Security', 'secure' and 'safe' were three words inputted by a number of the stakeholders on the meeting showing that safety/security is the main aspect that needs to be considered in a lorry parking standard. In addition, 'clean' was the next most popular word inputted by four attendees relating to driver facilities such as toilets and showers. There were then a range of additional responses including driver welfare, food types, socialising, and location.

BPA noted that this is what it has tried to do with the current criteria for Park Mark Freight, which would be additional to the criteria for the safety parking scheme – Park Mark. It would not be possible to get Park Mark Freight without passing Park Mark. It has taken TAPA criteria and other items where appropriate and has picked up on what DfT said about things not being too onerous. It is important to get some sort of consistency of standards in place and BPA has the capacity to actually get area managers all across the country to inspect and mark against those criteria and it is very willing to support experiments and or trials or initiatives. Feedback on the Park Mark initiative would be useful.

NaVCIS has been having a real push and advocating that there is a need for the UK to adopt a robust, secure parking standard. There is a big difference between safe parking and secure parking. There are only two truckstops in the whole of the UK that have got TAPA secure parking accreditation and they are at the bottom end of the Level 3 accreditation. EU funding is being used to upgrade 28 MSAs across Europe from safe parking to secure parking. Until the parking market is saturated with more secure parking alternatives, the thefts will continue to go on. There is a need for a robust and secure lorry parking standard to be adopted.

6.3.5 Solutions

Moving on from what needed to be included, stakeholders were asked what they believed the solutions to be (Figure 6-12).

Figure 6-12: What are the solutions to on-site parking?

‘Easier planning’ was the main phrase to come out of the word cloud, along with ‘funding’, ‘planning policy’, and ‘clear policy’. A number of times on the call, representatives from operators mentioned how policy and approvals are sometimes holding back the development of new sites/better facilities and that this needed to be reviewed.

There was some discussion around planning rules on replacing lorry parking which is “lost” if there is a demonstrable need for it to still be there.

SNAP is working with about 7,000 fleets and an increasing proportion of those are making their own yards available for third parties to park at. SNAP currently partners with 110 depots and provides 1,650 spaces a day. CILT confirmed that quite a number of transport companies have reciprocal parking agreements.

Orwell Crossing Lorry Park was a long and well-established on-site facility which is now closed and is being developed as a logistics park thus the value to the site owner is likely to be greater. There is at least a 12 -15 year payback period when investing in a new site and also difficulties in reaching the right developers when soft marketing a potential lorry parking site. Logistics parks ought to offer parking – perhaps this could be introduced as a planning condition. Logistics facilities often have limited loading space and tight delivery windows which push trucks onto the road and waiting nearby overnight for the early slots. There is a duty of care on sites to allow drivers to use welfare facilities and this is in the National Planning Policy Framework (NPPF), but it is unclear how well it is enforced.

Carter Jonas noted that Developers are always driven to build big glamorous sheds and yards and parking is just not quite as glamorous but in the last couple of years there are a lot of US investors with deep pockets coming across interested in ‘open storage’. Rate and pricing is making it more attractive for investors to do more sites like the new Rothwell facility. The equation now works better to provide more good quality truckstops.

DfT flagged that it was shortly to consult on an updated planning circular in which it has substantiated the written ministerial statement that was released on 8 November 2021 about the roadside facilities and making sure that the planning authority takes due attention that for existing sites, unless there is not a demand for it, they should remain as lorry parks. It is trying to work with local authorities and their local development plans to ensure that where there is parking demand, it is met.

Moto/Smith Jenkins stated that existing planning policy really does not focus on trucks, for example DfT’s Circular 02/2013 really focuses on cars. The starting point for planning practitioners who are trying to argue for the benefits of roadside services and lorry facilities is very limited from a national policy perspective. In the planning process, it can be two and a half years from beginning to end. Each authority seems to have a different view in terms of need and the reliability of the information that is being put to them. A good example is the recent refusal for a site in Kent and the frustration that applicants have not got the tools that are needed through national policy to be able to influence local authorities to make the right decisions. The cost of taking something to appeal will just put the private sector off from developing what is needed nationally.

Ashford International Truckstop reported that it was turning away more trucks than it ever did and that was now around 1,000 trucks a week even though its capacity had been increased to 600 from the old 390 spaces. Thus if anyone wants to argue the case of there not being a need for truckstops in Kent, that is a massively false assumption.

6.3.6 Funding

DfT reported it has £32.5 million from the last spending review and is focusing it on funding to provide better driver welfare, so more toilets, showers, female toilets, better food - anything in that category. The criteria is currently being developed and includes security, for example match funding for CCTV will be available. The funding window is hoped to be open in October. NH also has £20m funding and it is encouraging expressions of interest straight away.

NH provided a link to the funding on the call and then confirmed that more information would be publicly available later this summer but advised service operators to apply for the fund immediately to get the ball rolling.

7. Summary

As can be seen at Figure 7-1, during the March 2022 national programme of night audits, a total of 21,234 vehicles were recorded within five kilometres of the SRN in England. 328 on-site parking facilities were recorded, where 65 per cent of all parked vehicles were observed. 4,068 off-site parking locations were recorded.

Figure 7-1: Summary of 2017 and 2022 overview figures

All vehicles observed	(2017)	2022	% change
Truckstops	(11,469)	13,916	21%
Laybys	(4,709)	4,157	-12%
Industrial estates	(2,492)	3,161	27%
Total off-site	(7,201)	7,318	2%
Total	(18,670)	21,234	14%
% of total parking off-site	(39%)	35%	--

Sites	(2017)	2022	% change
Truckstops	(311)	328	5%
Laybys	(3,397)	3,241	-5%
Industrial estates	(801)	827	3%
Total	(4,509)	4,396	-3%

Capacity	(2017)	2022	% change
Truckstop (all) capacity	(15,012)	16,761	12%
Utilisation of this capacity	(76%)	83%	--

Foreign vehicles observed	(2017)	2022	% change
Truckstops	(2,862)	4,516	58%
Laybys	(1,207)	710	-41%
Industrial estates	(536)	425	-21%
Total foreign	(4,605)	5,651	21%
% foreign	(25%)	27%	--

UK / foreign comparison	(2017)	2022	% change
Total UK vehicles	(14,015)	15,583	11%
Total foreign vehicles	(4,605)	5,651	21%
Overall total	(18,670)	21,234	14%

With a total of 21,234 vehicles observed at on-site and off-site parking facilities, and an on-site capacity of 16,761, there is an excess of 4,473 vehicles against on-site capacity.

A total of 15,583 UK registered vehicles (73 per cent) and 5,651 non-UK registered vehicles (27 per cent) were observed, with 4,516 non-UK registered vehicles parked at on-site parking facilities, representing 80 per cent of non-UK registered vehicles. This compares to 9,400 UK registered vehicles parked at on-site facilities out of 15,583, representing 60 per cent of UK registered vehicles.

The provision of lorry parking at on-site facilities is nearly at critical level, having reached 83 per cent utilisation level across the network, with the highest utilisation rates found in the following regions:

- East of England at 95 per cent
- South East at 94 per cent
- East Midlands at 92 per cent

All three regions are over the critical level of 85 per cent, and above the national average utilisation level of 83 per cent.

The March 2022 audits were undertaken in what is typically a quieter month, therefore the findings from the longitudinal audits in the South East, the Midlands, the East of England, and the North West will be key to building the seasonal picture.

8. Study observations and concluding commentary

The 2022 lorry parking research study was commissioned by the DfT to produce an accurate assessment of lorry parking provision and demand through physical audits within five kilometres of the SRN in England to compare overnight utilisation with the previous study in 2017. The findings will help public bodies to better support industry to meet the parking and welfare needs of drivers and support the economic requirements of the country.

The 2022 study highlights that there remains a shortfall in the provision of on-site parking facilities, with 21,234 vehicles observed at on-site and off-site parking facilities within five kilometres of the SRN in England against an on-site capacity of 16,761, translating into a recorded excess of 4,473 vehicles against capacity. There are a range of macro and micro factors that have affected the demand for lorry parking spaces, including economic activity, increase in population, trading patterns, average distance of journeys, shortage of drivers, cost differential between UK and non-UK registered hauliers, the need for better security and welfare, and safety concern over parking in laybys and inappropriate places. Although the relative influence of each of these factors is uncertain, the overall net effect over the last five years is clear and that is, the demand for lorry parking spaces has grown faster than the supply of additional spaces.

This study highlights that 143 on-site facilities are at the defined critical level of 85 per cent full or more. This includes Ashford International Truckstop for example which in fact turns away on average over 100 vehicles every night despite its capacity having recently gone up by over 200 spaces.

This section provides further insight on a number of aspects that have arisen during the study that are worth noting. These fall into the following areas:

- On-site parking typology
- Collaborating with other audit data providers (Kent County Council)
- Understanding driver behaviour
  - Non-UK drivers
  - Van drivers
- Introducing a standard for on-site facilities

8.1 On-site parking typology

As the audit process refines each time it is completed, and as the lorry parking environment and driver behaviours change and develop over time, it may be beneficial to revisit the on-site parking typology and refine it. The on-site parking typology used in the report, which was derived from the original 2010 and 2017 studies, has been retained for the 2022 national audit to enable direct comparisons with the previous benchmarks. It is recognised that the typology is not perfect, and for previous studies the primary focus and concern has been on the comparison between the volume of on-site and off-site overnight parking. For example, a trend has been noted in the 2022 audits towards some sites being given over or sub-let to companies for their own depot parking. One site (Night Owl Alconbury) has been bought by a national haulier for its own exclusive use as a depot and staging post for drivers. In addition, through intermediaries such as SNAP, or on a reciprocal basis, fleet operators are offering spare parking capacity at their depots to other operators, and it will be important to consider such capacity in future studies.

Whilst the overall on-site parking categories need to be retained for comparative purposes, it may be possible and beneficial to further sub-divide some of the categories to assist analysis and decision making. Some possibilities for consideration are:

- Café with overnight lorry parking – to further describe a form of on-site parking facility that is associated with a café open to all traffic types
- Company transport depot that offers overnight facilities to non-company lorries
- Site that offers depot parking and general lorry parking

In addition to the typology for on-site parking, it may be useful to define further types of informal parking. The study currently includes laybys and industrial estates. However, lorries can be observed using other locations, including:

- Scrap ground – unoccupied land with a degree of hardstanding that attracts lorry use
- Unadopted roads – parking on service roads and roads on or to new development not yet completed
- Cafes only open day-time hours

Therefore, a category, or categories, encompassing the above should be considered for future studies.

8.2 Kent County Council overnight lorry parking surveys

In an effort to understand the extent of lorry parking in Kent, Kent County Council (KCC) has undertaken surveys in 2017, 2018, 2019 and 2022. It is understood the entire main roads network is surveyed in terms of off-site parking and thus a larger area in Kent is covered than in the national DfT audit.

Table 8-1 provides a summary of the KCC data and shows there has been a reduction in the number of lorries parked off-site in the county to previous years. This is attributed to overnight clamping schemes being introduced around Ashford, the expansion of Ashford International Truckstop and the use of bollards on slipways on certain sections of the A2.

Table 8-1: KCC Off-site parking survey results

HGV Overnight Parking Survey 2017,2018,2019 & 2022

District	Jun-17	Sep-17	Jun-18	Sep-18	Jun-19	Sep-19	Jun-22	Average
Swale	270	234	234	246	260	160	176	225
Canterbury	120	85	102	82	88	75	36	84
Tonbridge & Malling	90	96	96	82	69	61	56	79
Ashford	109	128	77	50	38	48	66	74
Dartford	59	48	54	57	57	66	40	54
Dover	48	70	40	53	53	52	48	52
Maidstone	40	49	42	55	68	62	42	51
Medway	40	40	40	46	42	42	83	48
Sevenoaks	49	53	39	40	45	54	45	46
Gravesham	29	32	42	57	17	37	31	35
Thanet	6	3	11	20	28	30	8	15
Folkestone & Hythe	14	11	15	15	9	16	19	14
Tunbridge Wells	1	3	5	5	5	9	5	5
Total	**875**	**852**	**797**	**808**	**779**	**712**	**655**	**782**

The 2022 national DfT audit recorded 482 vehicles parked off-site in Kent and 1,898 on-site (within five kilometres of the SRN). Going forwards, it is recommended that KCC works with DfT to share survey data to provide a greater level of understanding of both on and off-site parking. There may even be an opportunity to collaborate on the audit activity to combine or share resources.

8.3 Understanding driver behaviour

8.3.1 Non-UK drivers

The study recorded 27 per cent of all vehicles as non-UK registered. Of that 27 per cent, 80 per cent of drivers of non-UK registered vehicles ("non-UK drivers") were found to be parked at on-site facilities. The propensity of non-UK drivers to use on-site facilities can in part be explained by the fact that non-UK drivers are away for longer and do not have access to home depots in the UK and therefore are needing to park at locations with better facilities. According to the on-line survey undertaken for this study, 197 out of 364 drivers (54 per cent) responded that they prefer to park at designated on-site facilities that charge a parking fee. Whilst only a small sample size, 13 out of the 20 non-UK driver responses said they preferred to park at designated off-site facilities, which equates to 65 per cent.

The greatest proportion of non-UK registered vehicles parked at on-site facilities were found in the South East – 56 per cent. This obviously reflects the higher intensity of international traffic in this region but may also be explained by the restrictions imposed by KCC on off-site parking, forcing drivers into on-site parking facilities. Future parking audits could usefully further investigate the preferences and parking behaviour of drivers of non-UK registered vehicles (lorries and vans).

8.3.2 Van drivers

The study team observed a number of vans parking overnight, especially in the South East. Although anecdotal, there appears to be an increase in the use of vans for international trades as they can take advantage of less regulation in terms of drivers' hours, operator licensing and lorry curfews. Vans and their drivers have not been the focus of this study, but further research would be helpful to understand their overnight parking needs and requirements, and how the better management of van parking could alleviate parking capacity issues at some locations, in particular at MSAs on the routes to the Channel crossings.

8.4 Standards for facilities

It is clear from the engagement part of the study that poor quality facilities at parking locations, sub-standard security, and the high cost of parking are all areas of great concern for the drivers.

According to the survey undertaken by 364 drivers as part of the study, 99 per cent of drivers stated that access to well maintained toilets and showers was very or quite important to them.

Security is an ongoing concern for drivers with 96 per cent, 95 per cent, and 94 per cent of drivers citing CCTV, security staff, and security as very or quite important respectively. 92 per cent of drivers also felt that lorry crime had increased in the past five years, with NaVCIS data showing that, in 2021, it received 4,434 notifications of UK cargo crime. There are a number of organised crime groups in the UK targeting specific commodities in different regions of the country, leaving drivers vulnerable and, therefore, there does appear to be a growing need for CCTV and security patrols to fully monitor parking areas to prevent crimes and protect drivers.

It also appears from the driver survey that 60 per cent of drivers feel they do not get enough money to cover the cost of parking.

As part of the drivers focus group undertaken for this study the standard of on-site parking facilities such as showers, good food, available spaces to park, social spaces, and cost of parking were highlighted as areas of concern and that if addressed would benefit driver recruitment and retention.

The 2022 national audit has found that the use of apps, booking tools and on-site traffic marshals are all ways of making better use of the spaces available around the country. In addition, coach and car parking areas in MSAs are often under-utilised during the evenings/nights and could be provided as additional spaces for lorries without the need to extend the site, although facilities may need upgrading to accommodate the extra lorry drivers.

Appendix A

Definitions of on-site parking facilities

Appendix A Definitions of on-site parking facilities

Type	Description	Example site
Independent truckstops	■ Sites providing daytime and overnight lorry parking facilities that are usually independently owned and operated (or may be part of a specialist chain of sites). They are available to any freight driver (irrespective of company) and are typically exclusively for the use of freight vehicles but some may provide daytime rest and refreshment facilities for passenger traffic (car and coach) ■ (Also includes cafes with parking for lorries – which may not have any facilities opened at night)	■ M20 Ashford International Truckstop ■ Exelby Services - Coneygarth ■ Formula Services - Ellesmere port
Local authority truckstops	■ Sites providing daytime and overnight lorry parking facilities that are under the control of a local authority. Typically basic toilet block amenities are provided and often an independently run café is co-located on the site. ■ Sometimes a car park that is used for lorry parking at night, typically without any facilities	■ A14 Hill Top Café - Bury St Edmunds ■ York Lorry Park
Motorway service areas (MSAs)	■ Sites signed off the Motorway network providing daytime and overnight lorry parking facilities, typically but not exclusively operated by road-side facility chains. Separate lorry parking areas are provided but welfare facilities are common to all MSA traffic	■ M6 Tebay MSA – operated by independent Westmorland family
Trunk road service areas (TRSAs)	■ Sites along the strategic road network providing daytime and overnight lorry parking facilities. Separate lorry parking areas are provided but welfare facilities are common to all service area users. Whilst some sites are large, many are small with limited lorry parking and facilities limited to the forecourt shop and toilets	■ A14 Cambridge Services - operated by Extra ■ A2 Gate Services - operated by Esso ■ BP Leominster

Appendix B

AECOM SHE plan and risk assessment

Appendix B AECOM SHE plan and risk assessment

Note that all personal information has been removed.

Project Title	**DfT Lorry Parking Research**
Project Number	60676263
Site Name	Multiple Sites
Site Address	Multiple Sites
Start date of Site Work	21/02/2022
Finish date of Site WorkLifeguard	31/12/2022

Preparation / Approval Record		
Prepared	James Nankivell / Principal Consultant	
	Name / Position	17/02/2022
Checked	Sonia Hayward / Associate Director	
	Name / Position	17/02/2022
Approved	John Hix / Regional Director	
	Name / Position	18/02/2022 09/05/2022 Revision 04

Revision Record

Issue No.	Date	Date of next review	Details of Revisions
01	17/02/2022	02/04/2022	Creation of document
02	25/03/2022	02/04/2022	Additional information provided in the event of an accident/damage in line with AECOM procedure Additional request to report an incident into AECOM IndustrySafe (as well as LifeGuard)
03	06/04/2022	02/08/2022	Amendment to the reporting for the auditors – changed from messaging when starting, every two hours, and at the end to reporting when starting and then the last auditor reporting to their partner once home
04	04/05/2022	04/06/2022	Asking all auditors to sign the SHE plan to acknowledge the change communicated previously and identified at revision 03 Removal of auditors no longer likely to take part in the periodic surveys Addition of the requirement to declare any incident even on company insurance to own insurance

Contact details for the project				
Role	**Activity (contractors)**	**Name**	**Organization**	**Contact Details**
Client		Darren Webb	Department for Transport	
Project Supervisor (EMIA)		James Nankivell	AECOM	07799 615 907 James.nankivell@aecom.com
Designer		N/A	N/A	N/A
Coordinator for H&S (EMIA) / Principal Designer (UK)		Paul Davison	AECOM	07799 712 521 Paul.davison@aecom.com
Main Contractor (EMIA) / Principal Contractor (UK)		N/A	N/A	N/A
Contractor		N/A	N/A	N/A
Contractor		N/A	N/A	N/A
Contractor		N/A	N/A	N/A
Europe SHE Director		Euan Mckie	AECOM	
Regional SHE Manager		Neil Bailey	AECOM	
Project Director		Geoff Clarke	AECOM	07957 214 436 Geoff.clarke@aecom.com
Project Manager		James Nankivell	AECOM	07799 615 907 James.nankivell@aecom.com
Site Manager / Supervisor		See Communications Plan Table 1 for contacts		
Site Safety Officer (SSO)			AECOM	
AECOM Site Staff		See Acceptance Report Table		

Lorry Parking Surveys – Key Information Index

This document must be read prior to lorry parking surveys being undertaken and signed by each named individual to confirm understanding and acceptance of the project requirements laid out to undertake the work safely and professionally.

The information includes:

  - Duration of project
  - Lorry parking site terminology
  - Training required
  - General requirements
  - Welfare and security provision
  - Breakdown / Emergency procedure
  - PPE/Equipment requirement
- Appendix 1 – Risk Assessment
- Appendix 2 – Department for Transport Letter of Authority
- Appendix 3 – How to check your vehicle/ensure you are familiar with the controls
- Appendix 4 - Information to collate in the event of a collision with another vehicle

Acceptance Record - PLEASE SIGN ONCE YOU HAVE READ AND UNDERSTOOD THE INFORMATION

(All AECOM and Subcontractor personnel must sign the record below)

I have read this plan and understand the arrangements for working safely during the lorry parking surveys.

I will abide by the requirements and procedures set out in this document (including all appendices).

If I become aware of any unsafe situation during the works, I will notify the AECOM Project Manager immediately.

Name	Organisation	Signature (INSERT ACTUAL SIGNATURE)	Date

PRE-SURVEY ACTION CHECKLIST	DONE
■ **Read and understand this plan** ■ **Save all phone numbers from the communications plan to your phone** ■ **Sign this plan** ■ **Block the survey dates in your calendar** ■ **Provide your emergency contact details to your regional manager when asked** ■ **Obtain the long sleeve hi viz vest via local office lead as instructed** ■ **Download the app to your laptop as instructed** ■ **Download the app to your phone when instructed** ■ **Print the DfT Letter of Authority at Appendix 2 (a clearer copy is available on the Teams channel)** ■ **Ensure you understand instructions from regional manager about routes, hotel bookings** ■ **Ensure you are an assigned driver on the AECOM Authorised Driver's list if you are a driver** ■ **Attend the briefing on 24 February or listen to the recording**	

Communications plan

Emergency services can be contacted by dialing 999 or 112 from a mobile

ACTION: ENTER ALL RELEVANT NUMBERS FROM THIS PLAN, INCLUDING IN THE TABLES, INTO YOUR PHONE

Method of contact	■ Mobile phone – calls and What's App
Contact procedure if you are involved in an incident or there is an emergency	■ Inform the nominated person as detailed in Table 1, after contacting the relevant parties, including emergency services as appropriate. ■ The nominated person will then inform your regional manager (if required) as detailed in Table 2
Contact procedure throughout the surveys	■ National audits: Each audit team to check-in when starting their audit by posting a message in the dedicated lorry parking survey WhatsApp group – Start of the shift; and – Every two hours throughout shift; and – At the end of the shift following safe arrival at home / hotel ■ The nominated contact at Table 1 will monitor the check-ins ■ Periodic audits: One auditor to check-in when starting their day or night audit by posting a message in the dedicated lorry parking survey WhatsApp group. No other reporting on the WhatsApp group required during the survey. The WhatsApp group will be monitored by either Sonia Hayward or James Nankivell. Last auditor to get home at the end of the survey to message the team partner to advise once home. Both should agree an approximate time when should have reached home
Contact with your team member	■ Phone numbers will be shared via the designated What's App group
Contingency plan when there is no contact from team	■ If a team has not checked-in at the start of the audit, Sonia Hayward or James Nankivell will make contact with one of the team members. ■ If the last team member fails to report to his other team member within the approximate agreed period, the following actions will be taken by the team partner: – Contact tried via mobile phone for 15 minutes – James Nankivell informed – Police informed by the team partner of last known location and – John Hix informed by James Nankivell
Contact if in distress – code phrase	■ Call 999 or call the emergency contact listed at Table 1 using the code phrase 'form 777' e.g. "I am just filling in the 777 form an wanted to check…" or "I am running out of form 777 and need some more…" ■ This will trigger the call recipient to inform the police immediately of last known location

Contact in the event of a breakdown requiring roadside assistance	■ Move yourself to a place of safety (eg get out of the left hand side of the car (near side) and stand behind the crash barrier on a motorway) and call Enterprise Rent-A-Car Assist on 0800 316 0977 if you require roadside assistance ■ Let the emergency contact in Table 1 know after contacting the relevant parties including emergency services. The emergency contact will let your regional manager know
Contact in the event of a collision with another vehicle	■ If you can, move yourself to a place of safety (eg get out of the left hand side of the car (near side) and stand behind the crash barrier on a motorway) and call Enterprise Rent-A-Car 24/7 on 0345 600 5923 (if not at the time, within 12 hours). If the vehicle requires immediate attention, call 0800 316 0977 ■ Let the emergency contact in Table 1 know after contacting the relevant parties including emergency services. The emergency contact will let your regional manager know ■ Obtain insurance information listed at Appendix 4 if involved in a collision with another vehicle – failure to do so may invalidated insurance cover ■ You are also required to report any vehicle accident (irrespective of who the hire company is) direct to Zenith (FMG) who are the AECOM appointed accident management company. Zenith will manage the entire process of the "claim" with our insurers on AECOM's behalf. Call 0370 732 4136 selecting Option 1 ■ Provide the third party with Enterprise's telephone number above. Should you need to provide a Third Party with our insurance company details, please provide Zurich Insurance Policy Number – EU746311. Insurance policy holder – AECOM Limited & AECOM Infrastructure and Environment UK Limited and Subsidiary Companies ■ All incidents, even on company insurance, will need to be declared to your own vehicle insurer

Table 1: Nominated contact – this is a responsible person who will be working nights those weeks

Emergency contact	W/C 7th March	W/C 14th March	W/C 21st March	W/C 28th March
Nominated responsible person				
Contact number				

Table 2: Regional manager contact for each region/team – this is the team's contact for mapping the route, booking car hire, hotels etc

Region	Team	Manager	Email address	Telephone
North West	Team 1			
London	Team 2			
South East	Team 3			
East Anglia	Team 4			
North East	Team 5			
West Midlands	Team 6			
East Midlands	Team 7			
Yorkshire and Humber	Team 8			
South West	Team 9			

Lorry parking survey key information

Scope of works, and description of activities	■ A national survey of lorry parking facilities and lorry parking demand is to be undertaken from 22 February through to December 2022. The surveys entail driving past laybys and in industrial estates to count vehicles (vehicle type defined during briefing) and stopping in lorry parks to count vehicles via a pre-approved route. A dedicated App will be used to capture pre-set information. ■ In all months except March, a team of two will do a day survey in the North and a day survey in the South. ■ In all months except March, a team of two will do a day survey in the South and a night survey in the North. ■ In March, nine teams of two (occasionally three) will survey a planned area of the strategic road network between 1800 and 0100 Monday to Thursday. The remaining time will be for rest. ■ No activities requiring permits to work are anticipated.
Duration of project	1. March surveys will run between 07/03/2022 and 01/04/2022 2. Monthly day surveys will run on various dates in February and April onwards
Lorry parking site terminology	■ There are three categories of lorry parking sites to be surveyed: – Layby – roadside refuge to enable drivers to stop and park. Few facilities, primarily designed for short breaks – Industrial estates – areas of industrial/commercial developments often used for overnight parking by lorries. Few dedicated facilities but often close to restaurant – Lorry Park – dedicated facilities designed for short breaks and overnight parking, often secure with ablutions and restaurants

Training required (project specific)	■ A dedicated briefing will take place on 24 February (one morning session and one afternoon session) to cover: – Use of the dedicated App to record vehicle counts and facilities – Health and safety training relating to the surveys (eg pre-departure vehicle checks – See Appendix 3) – Identification of the different types of vehicles to be counted ■ All drivers must meet minimum standards to be placed on the AECOM authorised drivers' list and undergo some driving related training as part of the authorisation process
Day and night surveys – safe working instructions and requirements that must be followed	■ **Ensure you have your letter of authority with you at all times for entering the lorry parks – See Appendix 2** ■ **Wear the required PPE (long sleeved hi-vis jacket) as specified in this plan** ■ If you are involved in an incident or emergency, follow the communications plan and move to a place of safety if appropriate (eg get out of the left hand side of the car (near side) and stand behind the crash barrier on a motorway) ■ All incidents, near misses and observations to be reported to the regional manager, who will subsequently report it into the AECOM LifeGuard ■ Any car incident/collision to also be reported into AECOM IndustrySafe by the regional manager ■ All personnel must correct or report unsafe work conditions. You can stop work if unsafe: the AECOM 'Stop Work' policy states 'Every AECOM employee has the authority to stop work if health and safety is being compromised. Nothing is ever so urgent or important that we can't take the time to do it safely'. Do not take risks that put yourself or others in danger ■ When doing night surveys, don't work during the day and ensure you have sufficient sleep and rest in the day, ready for your night shift. Stop the car and rest if tired. Swap driver if possible ■ Do not drive for more than four hours without a break ■ Avoid driving beyond 2am. If you have to drop someone off, conclude your surveys to give you enough time – even if that means not completing a few ■ Don't access sites through non-permitted routes. If it's shut move on and come back another night and/or let your regional manager know so it can be planned in ■ Speak to your regional managers if you're having issues so they can re-plan your route ■ Do not get out of your vehicle in a layby during the hours of darkness ■ Be careful entering and exiting laybys – check your mirrors and signal in plenty of time. When exiting, if possible, use the layby to accelerate up to speed before joining. If not allow plenty of space to merge – it's more difficult to judge speed and distance at night ■ Always conduct research in pairs and approach individuals with caution

Environmental receptors that may be affected by the work	■ N/A
Welfare and security provision	■ Welfare facilities and security vary with the type of site being visited. All teams are to remain in their pairs and instructed not to survey or stop the survey if they are concerned for their safety/security.
Breakdown/Emergency procedure	■ If your vehicle breaks down or you are involved in an incident, please refer to the communications plan and Appendix 4
PPE/equipment required	■ Hi viz long sleeve vest (purchase from your local office if you don't have one) ■ Mobile phone used for contact but also for the passenger to capture data ■ Phone charger ■ DfT Letter of authority ■ Warm coat ■ Water and food supply

Appendix 1 - Job safety analysis – risk assessment

Principle Jobs	Potential Safety / Health Hazards	Before Controls			Summary of Control Measures	Procedure Ref.	Persons involved			Responsibility	After Controls		
List principal steps involved in the job.	Identify each safety or health hazard Ref. ATT2	Probability	Severity	P x S	Identify any engineering and administrative controls any specific PPE that will be required.		AECOM	Sub-con	Others		Probability	Severity	P x S
Travel To/From Site	Risk of accidents/serious incidents during travel to site	2	4	8	Routes pre-planned by regional manager to minimise unnecessary travel Drivers subject to licence checks and additional training when applying to be added to the AECOM Authorised drivers' list. Only drivers from the list authorised to drive for the surveys	S3EMIA-005-PR Driving	Yes	No	No	Drivers	1	4	4
	Driver fatigue leading to collision with other road users or street furniture	3	4	12	Drivers to take regular breaks and share driving responsibilities if possible. Drivers not to drive whilst tired When night driving, share the driving time, if possible, to reduce risk. Take a break when necessary. Do not drive for more than 4 hours continuously. Ensure the data collection part of the shift has ended by 1am		Yes	No	No	Drivers	1	4	4
	Unfamiliar roads and rural areas could lead to driver error	2	4	8	Regional Managers to plan and review journey before commencing task. Routes primarily part of strategic road network Drivers undertake additional online assessment and training		Yes	No	No	Drivers	1	4	4
	Survey will involve use of major roads and possibly associated lay-bys and industrial estates	1	4	4	Drivers to ensure care on major (and all) roads and take particular care at junctions and when exiting laybys. All project team members to review route before survey commences.		Yes	No	No	Drivers	1	3	3
	Compliance	3	1	3	Driver to be fully licensed, on the AECOM authorised drivers' list and comply with all relevant driving and safety regulations. Adjust seat, mirror and steering wheel position. If unfamiliar with the vehicle – get to know the vehicle controls (e.g. lights, windscreen wipers, etc.). Understand procedures for breakdown assistance and have appropriate contact numbers available for summoning assistance.		Yes	No	No	PM	1	1	1
	Concentration/Distraction	3	4	12	If you feel a loss of concentration on the road stop driving at the soonest appropriate opportunity and take a rest Drivers not to operate mobile phones or adjust navigation equipment whilst driving		Yes	No	No	Drivers	1	4	4
	Visibility of other vehicles, infrastructure and other road users	2	3	6	If you must leave the vehicle to count lorries in lay-by, industrial states or on the actual truckpark site take note of uneven surfaces, and the general safety of the environment e.g. moving vehicles, darkness and exposure. Ensure you are in sight of other team members at all times and wear your long sleeve hi viz vest Do not show overt signs of wealth		Yes	No	No	Team Members	1	3	6
	Risk of breakdown	1	2	2	Hire cars are new, regularly serviced and members of the AA. Audit teams to carry water, food supply and warm coat in car.		Yes	No	No	Team Members	1	2	2

Principle·Jobs¤	Potential·Safety·/·Health·Hazards¤	Before·Controls¤			Summary·of·Control·Measures¤	Procedure·Ref.¤	Persons·involved¤			Responsibility¤	After·Controls¤		
List·principal·steps·involved·in·the·job.¤	Identify·each·safety·or·health·hazard·Ref.·ATT2¤	Probability¤	Severity¤	P·x·S¤	Identify·any·engineering·and·administrative·controls·any·specific·PPE·that·will·be·required.¤		AECOM¤	Sub-con¤	Others¤		Probability¤	Severity¤	P·x·S¤
Site·Surveys¤	Surveyors·(who·are·part·of·the·project·team)·may·need·to·leave·vehicle·to·assess·the·nature·of·lorry·parking·at·certain·locations·during·the·hours·of·darkness.·This·may·prove·hazardous·(other·vehicles·etc.)¤	2¤	3¤	6¤	■→Surveyors·to·wear·high-vis·jackets·and·to·take·care·when·outside·of·the·survey·vehicle.·If·walking·around·counting·trucks·–·allow·vehicles·plenty·of·room·to·manoeuvre.·Stop·in·a·position·where·the·driver·can·see·you·–·make·sure·you·can·see·his·mirrors.·Audit·team·should·carry·letter·of·authority·at·all·times¤	S3EMIA-002-PR·–·Stop·Work¤	Yes¤	No¤	No¤	Team·Members¤	2¤	2¤	4¤
	Lorry·drivers·or·other·road·users·may·be·hostile·to·survey¤	2¤	2¤	4¤	■→Lock·cars·when·stopped·inside·in·lorry·parks¶ ■→Surveyors·to·have·letter·of·authority·from·Department·of·Transport·(DfT).·Surveyors·not·to·engage·with·anyone·deemed·hostile·to·survey.·If·appropriate·surveyors·to·cease·survey·and·move·on·to·another·site.¶ ■→Do·not·put·yourself·at·risk·under·any·circumstances.·Avoid·potentially·violent·or·confrontational·situations·prior·to·starting·work·and·only·begin·if·considered·safe·to·do·so.·¶ ■→If·abused,·threatened·or·assaulted·by·a·member·of·the·public,·stop·work·and·contact·senior·staff·and·/·or·the·police·as·soon·as·possible.¶ ■→Always·conduct·research·in·pairs·and·approach·individuals·with·caution¤		Yes¤	No¤	No¤	Team·Members¤	1¤	2¤	2¤
	Risk·of·injury·from·potential·trip·hazards,·kerbs,·equipment·in·entranceways·etc.¤	4¤	3¤	12¤	■→Keep·to·designated·walkways·where·possible,·wear·suitable·footwear,·stay·aware·of·all·potential·hazards·–·contact·site·management·for·hazard·brief¤		Yes¤	No¤	No¤	Te am· Me	2¤	2¤	4¤

Appendix 2 – Department for Transport letter of authority

To be presented to gain access to lorry parks

AECOM

Department for Transport

Department for Transport
Great Minster House
33 Horseferry Rd
Westminster
London
SW1P 4DR

RE: Letter of Authority (National Survey of Lorry Parking)

The Department for Transport (DfT) are keen to get a better understanding of the demand for HGV parking and driver facilities in England so that it can forecast lorry parking demand over the next decade and inform and progress a number of planned lorry parking initiatives. The Department will be investing £32.5 million in roadside facilities for HGV drivers. The funding will go towards supporting industry to improve both security and facilities available at existing sites, making the use of lorry parks more attractive to drivers. Officials are developing detailed proposals for the fund and more information will be publicly available in due course.

To complete this objective DfT have commissioned AECOM to undertake a comprehensive review of lorry park locations, including their capacity and utilisation, as well as other indicators of demand. As such, AECOM staff will be visiting facilities across England and assessing the following:

- Type of facility (e.g. Independent Lorry Park, Motorway / Trunk Road Service Area etc.)
- Parking charge
- Facilities available (e.g. Toilets, Showers, security features etc.)
- Capacity (e.g. number of parking spaces available)
- Utilisation (e.g. number of parking spaces used)
- Breakdown of UK registered vehicles vs foreign registered vehicles

In order to make an accurate assessment of utilisation, these audits will be conducted after 18:00 hours on Mondays, Tuesdays, Wednesdays and Thursdays, when the majority of freight traffic will have parked for the night. A national audit will be conducted throughout March and periodic audits will be carried out between February and August 2022.

DfT would like you to support the delivery of this project by allowing AECOM staff to access lorry parking facilities to assess the factors outlined above. Any information and data collected shall only be used for the purposes of this study and shall not be further processed or disclosed without permission.

Signed

Print name: Darren Webb
Position: Senior Policy Advisor – Road Freight Strategy (Department for Transport)

Should you require further information regarding this project, please contact:

James Nankivell (AECOM Project Manager)
Tel: 07799 615 907 **Email:** James.nankivell@aecom.com

Appendix 3 - How to check your vehicle/Ensure you are familiar with the controls

Most breakdowns are avoidable. Simple vehicle checks can help you have a safer journey and save you time and money.

The hire cars you will be using for the audit are all new and regularly serviced. They will also have been prechecked for faults by the hire car company prior to them being issued to you. However, it's important to conduct several checks yourself and ensure you are familiar with the controls.

1. Car exterior

You do not want to be responsible for another person's misuse of the car. Please make sure you inspect the car when delivered for any scratches or dents and note on the hire company form. Take photos.

2. Familiarise yourself with the rental vehicle

Every car is different. Chances are that you will not be renting the same car model as you might have done in the past. Familiarise yourself with the controls when the car is being dropped off – this is your chance to ask any questions to the rental company. Before heading out, make sure to take some time to:

- Adjust the seat and mirrors to your liking
- Check you know how to use the lights (be aware that hire cars may not have automatic lights and remember to turn them on when it gets dark) and windscreen wipers, and that you know where the hazard warning light button is located

3. Check for warning lights

All cars have a variety of dashboard warning lights, such as the engine management light or oil pressure warning light, that relate to different systems. On many cars, these lights will appear for a few moments when you switch on the ignition but should soon go out again. If one or more of these warning lights stays on when the engine is running, there could be a problem with your car. Dashboard warning lights are displayed by colour in red, amber, green and blue on a spectrum of how serious the problem is.

Check the dashboard for any warning lights that might be illuminated. A few of the more common warning lights include:

Check engine light - If this warning illuminates, it's very important to get your car checked, even if it feels completely normal to drive.

Oil pressure warning light - stop the engine immediately and contact the nominated responsible person for that evening. You may simply have to top up the oil to make the light go out - if it remains on, there could be a much more serious issue that requires a garage to investigate.

Brake system warning light - It may be that you've left the handbrake engaged slightly while pulling away, so ensure it is fully released - some cars may instead have the letter ‘P’ instead of an exclamation mark to represent that the parking brake is on. If this doesn’t solve the problem, or the warning light appears as you're driving along, pull over safely and call for roadside assistance or the nominated responsible person for that evening.

Battery charge warning light - This warning light can indicate a number of things, all relating to the car’s battery and charging system. This is a particular problem at night, because a faulty battery can lead to headlights failing, but without the battery or charging system providing electricity, you may find power steering, brake servos or the engine itself stop working. The cause of the warning light may be as simple as a faulty battery that’ll need replacing. But it could also be due to a problem with the car’s wiring or, more seriously, a fault with its alternator or drive belt

Temperature warning light - If you see the light on at any time after start-up, then the engine is running too hot or there isn’t enough coolant (also called antifreeze) in the system.

Tyre pressure sensor warning - Tyre-pressure monitoring systems (TPMS) are an increasingly common sight; indeed for the last few years, it’s been mandatory for carmakers to fit the system. Essentially, it constantly monitors the amount of air in the tyres.

If it detects a drop, it’ll provide a warning. This is important, because low tyre pressures can adversely affect braking and cornering and a sudden drop in pressure can cause a dangerous blow-out at high speed. If the TPMS system alerts you to low pressure, you’ll need to check and inflate the tyre.

Low-fuel warning light - This is a warning light that comes on when the amount of fuel in the tank has passed a certain level. It’ll usually come on when you’ve got around 50-70 miles of range and is designed to give enough warning so you can find a fuel station.

4. Fuel

Before setting out, check your fuel levels and make sure you know what type of fuel your car runs on. This is normally indicated on the inside of the filler cap. As a rule of thumb:

- Always keep your tank at least one quarter full to avoid running out of fuel.
- Make sure you fill up with fuel before you begin your audit.

This will help you avoid breaking down on a busy road or motorway, and potentially putting yourself and others at risk.

There is a handy reminder on almost all cars that lets you know which side of the vehicle you should refuel it from. On the fuel gauge on the instrument panel, there's a little icon of a petrol pump. Next to the icon is an arrow, pointing either left or right. If it's pointing to the left, your car's filler cap is on the left, and if it's pointing right then the cap is on the right.

Appendix 4 – Information to collate in the event of a collision with another vehicle

Please follow ALL of the action steps below. Failure to do so may jeopardise your coverage under available insurance

- Date
- Time
- Location
- Witness details if possible
- Third party name
- Third party registration
- Third party vehicle
- Images of both vehicles (especially where there is damage *if any)*
- Number of passengers

Appendix C

DfT Letter of authority

Appendix C DfT Letter of authority

AECOM

Department for Transport

Department for Transport
Great Minster House
33 Horseferry Rd
Westminster
London
SW1P 4DR

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- Parking charge
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Signed

Print name: Darren Webb
Position: Senior Policy Advisor – Road Freight Strategy (Department for Transport)

Should you require further information regarding this project, please contact:

James Nankivell (AECOM Project Manager)
Tel: 07799 615 907 **Email:** james.nankivell@aecom.com

Appendix D

Manual audit form

Appendix D Manual audit form

Name of auditor:		**Date:**		**Time:**	

Type and Capacity of Lorry Park

Region:	
Site Name:	
GPS Coordinates:	
Full Address:	
Postcode:	
Telephone number:	
Email Address:	

Type of Facility:	**Independent Lorry Park**		**Local Authority Lorry Park**		**Motorway or Trunk Road Service Areas**	
	Layby		**Industrial Estate**		**Hard shoulder**	
	Retail Park		**Other (specify)**			

Parking Charge:	£

Facilities Available

Toilets	M	F	U	**Showers**	M	F	U	**Café / Restaurant**		**CCTV**		**Lighting**		

Security Fence		**Accommodation**		**WIFI**	
Free WIFI		**vegetarian only**		**Vegan only**	
Vegan & Vegetarian		**Shop**		**Bar**	
Gym		**Laundry**		**Driver Lounge**	

Other Security features / Additional features	Security guard	Barrier	One entrance / exit	Other

Utilisation of Lorry Park			
Theoretical Capacity (No. of spaces):			
Actual Capacity (No. of spaces):		Percentage of park utilised:	
Number of UK registered vehicles in park:		Percentage of UK registered vehicles in park:	
Number of foreign registered vehicles in park:		Percentage of foreign registered vehicles in park:	
Truck Wash Facilities available		Number of Plug in points for refrigerated vehicles	
On site refuelling		Alternative fuels (Name them)	
Number of Electrical charging points		Separate provisions for vans	£

Additional Comments

AECOM

Appendix E

Rationale for longitudinal audits

Appendix E Rationale for longitudinal audits

Background to choice of routes

One of the main aims of the longitudinal study is to regularly visit a selection of sites across the country in order to see if there are any seasonal fluctuations in demand across a range of industry and commodity types and any trends in freight flows relating to the use of non-UK registered vehicles. The periodic visits will also provide evidence of where official lorry parks/MSAs reach capacity this affects the parking in neighbouring industrial/retail estates and laybys. The choice of four parts of England, in four different STB areas and are described in more detail within each section but this is an outline of the reasoning:

- **North West – Transport for the North –** Based on busy industrial area of the north linking from Greater Manchester to the border with North Wales including parts of Warrington, Cheshire, Halton and Merseyside. This corridor carries some traffic on the landbridge route to Ireland. It also carries chemicals and fuels from the oil refinery and industrial complexes near Runcorn.
- **South East – Transport for the South East -** Based on dominant international corridor with Mainland Europe through Kent picking up key parking areas including Ashford. This selection will monitor movements of driver accompanied freight often with a high percentage of non-UK hauliers. This corridor carries a wide range of goods including urgent parcels, temperature-controlled units and perishable goods and is busy all year round.
- **East of England – Transport East –** The Port of Felixstowe is the UK's largest container port and so the A12 and A14 carry significant volumes of deep-sea trade to all parts of the UK. This corridor is busy with a range of goods from all around the world but there is a noticeable peak in volumes in Q3 and Q4. The trend to larger 25,000 twenty-foot equivalent unit (TEU) ships may also be causing spikes in traffic. The area is also home to the production of grain, sugar beet and other seasonal produce so peaks may be evident.
- **Midlands – Midlands Connect –** The A50 corridor is a busy corridor linking major manufacturing facilities in the North Midlands. This corridor is a useful barometer of activity in several major industrial sectors due to the presence of leading companies such as JCB, Rolls Royce, Toyota, Nestle, multiple companies in the Potteries and also linking to the Freeport at East Midlands Airport and the new East Midlands Gateway rail freight interchange.

Commentary on network wide statistical comparison

Most statistical analysis is based on sampling a small proportion of the population. For this work the entire population of lorry parking facilities has been sampled, which can be seen as a sound snapshot of the current state of the population. It is known that seasonality may be a factor in any longitudinal survey, and as such we are adopting a segmentation in the follow up ongoing surveys ensuring we cover about 10% of the original surveys, and we have segmented them to ensure that the insights gleaned are both quantitatively helpful, but also qualitatively by sector/route or routing, as detailed below. Whilst the regional route selection provides a good 'cross section' of national activity, it should be borne in mind that there are likely to be local seasonal or non-seasonal variations in lorry parking activity, that are not on the selected routes and therefore not captured in the surveys, for example agricultural harvesting specific to an area of the country, or localised manufacturing or construction activity. **All data shown here is correct as per provisional data at 7 April from the 2022 survey.**

The four areas

1. **North West** - Warrington, Runcorn, Ellesmere Port, Knutsford and Lymm.

Mix of Motorways (M6, M56, M53 and APTR (A49, A50, A56, A557 and A41)) serving the industrial area of Wirral / South Merseyside and longer distance M6 corridor.

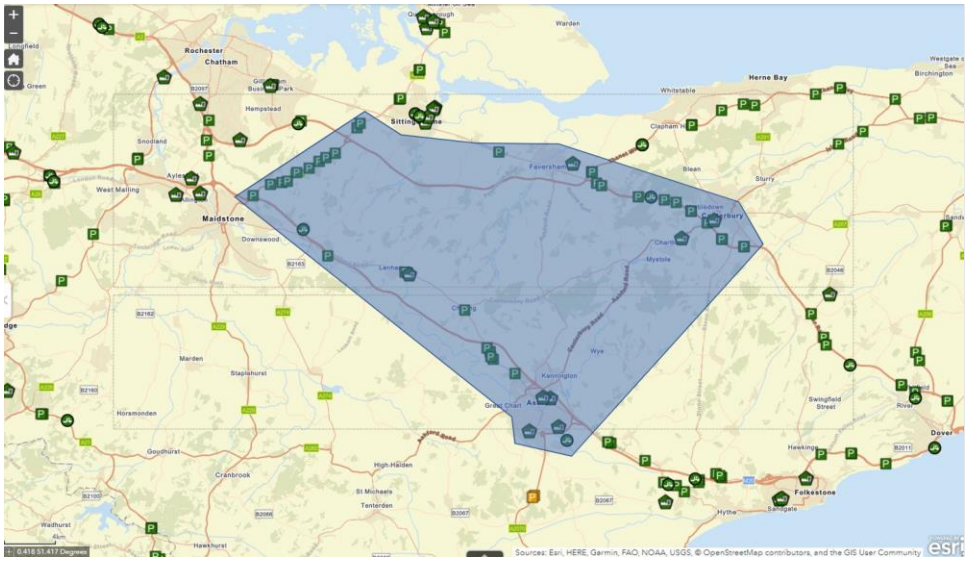
Parking facility breakdown:

North West					
	NUMBER ON ROUTE	NUMBER IN REGION	%	NUMBER IN ENGLAND	%
Independent truckstops	2	11	18.2	137	1.5
Local Authority truckstops	1	1	100.0	15	6.7
MSAs	4	21	19.0	126	3.2
Trunk road service areas	1	1	100.0	66	1.5
ALL truckstops	8	34	23.5	344	2.3
Industrial estates	8	122	6.6	839	1.0
Laybys	21	297	7.1	3292	0.6
TOTAL	**37**	**453**	8.2	**4475**	0.8

Route bias/Facility observations to note:

Likely slight international vehicle bias, also higher than average chemical traffic which is less likely to park overnight away from base or away from a depot. Larger number of MSAs than other longitudinal survey areas.

2. **South East** – Maidstone, Ashford, Canterbury, Sittingbourne



Mix of Motorways (M20, M2, and APTRN (A249, A2, A28)) serving north and west Kent and the Channel crossings.

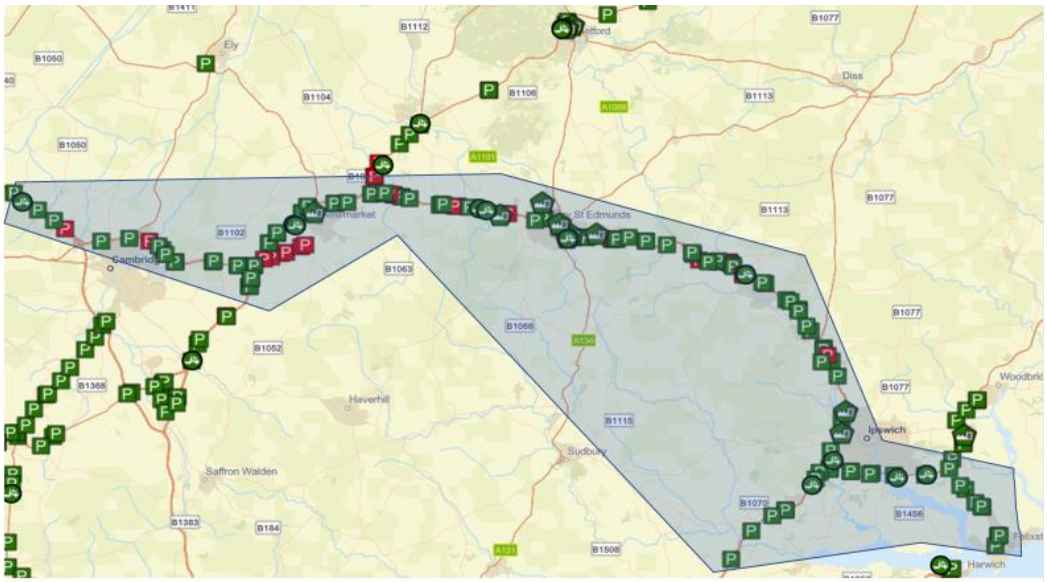
Parking facility breakdown:

South East					
	NUMBER ON ROUTE	NUMBER IN REGION	%	NUMBER IN ENGLAND	%
Independent truckstops	1	18	5.6	137	0.7
Local Authority truckstops	0	4	0.0	15	0.0
MSAs	1	25	4.0	126	0.8
Trunk road service areas	2	15	13.3	66	3.0
ALL truckstops	4	62	6.5	344	1.2
Industrial estates	5	114	4.4	839	0.6
Laybys	33	455	7.3	3292	1.0
TOTAL	**42**	**631**	6.7	**4475**	0.9

Route bias/Facility observations to note:

High international vehicle bias due to busy cross Channel traffic. Higher incidence of industrial estate and layby parking due to higher proportion of international vehicles. Possible additional parking due to Channel traffic disruption events. Seasonal bias in run up to public holidays and Christmas likely to be prevalent. Independent truckstop is largest in the country with strong international bias.

3. **East of England** – Felixstowe, Ipswich, Bury St Edmunds, Newmarket, Colchester, Cambridge.



A14 servicing East Anglia from the west and Felixstowe Port, A12 servicing East Anglia and Felixstowe Port from London. Regional routes serving local economy and strategic container route.

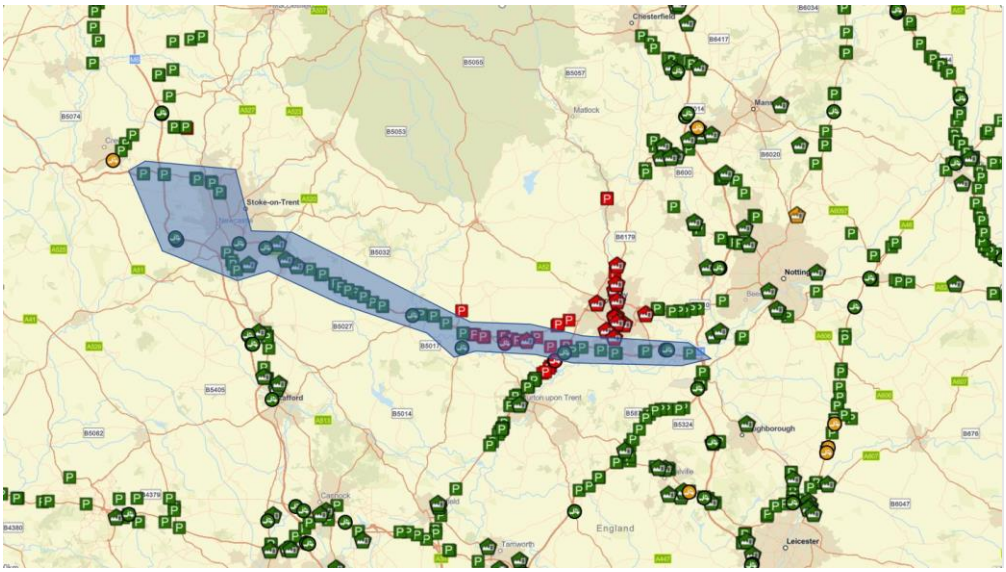
Parking facility breakdown:

East of England					
	NUMBER ON ROUTE	NUMBER IN REGION	%	NUMBER IN ENGLAND	%
Independent truckstops	4	21	19.0	137	2.9
Local Authority truckstops	0	1	0.0	15	0.0
MSAs	1	6	16.7	126	0.8
Trunk road service areas	7	16	43.8	66	10.6
ALL truckstops	12	44	27.3	344	3.5
Industrial estates	3	25	12.0	839	0.4
Laybys	74	429	17.2	3292	2.2
TOTAL	**89**	**498**	17.9	**4475**	2.0

Route bias/Facility observations to note:

Container traffic bias due to Port of Felixstowe. Ipswich area impacted by recent closure of Orwell Truckstop.

4. Midlands – North Staffs/South Derby corridor, M1/M6 connector including Stoke



Middle to long distance freight corridor connecting M1 and M6, also servicing regional freight for Derby, Burton, Uttoxeter and Stoke.

Parking facility breakdown:

West Midlands					
	NUMBER ON ROUTE	NUMBER IN REGION	%	NUMBER IN ENGLAND	%
Independent truckstops	4	16	25.0	137	2.9
Local Authority truckstops	0	2	0.0	15	0.0
MSAs	2	18	11.1	126	1.6
Trunk road service areas	4	5	80.0	66	6.1
ALL truckstops	10	41	24.4	344	2.9
Industrial estates	4	69	5.8	839	0.5
Laybys	26	295	8.8	3292	0.8
TOTAL	**40**	**405**	9.9	**4475**	0.9

Route bias/Facility observations to note:

Unlikely any international vehicle bias, good selection of road-side facilities.

AECOM

Appendix F

Lorry parking and driver welfare survey

Appendix F Lorry parking and driver welfare survey

Link to survey: https://wh1.snapsurveys.com/s.asp?k=164726923456
The survey closed on 30 June 2022.

The Department for Transport (DfT) will be investing £32.5 million in roadside facilities for lorry drivers and it is therefore keen to get a better understanding of lorry drivers' experience of parking and driver facilities in England. The funding will go towards supporting industry to improve both security and facilities available at existing sites, making the use of lorry parks more attractive to drivers.

Please help improve lorry parking by completing this short survey for drivers.

The DfT has commissioned the independent organisation AECOM to receive and analyse the responses to the survey. The DfT is the data controller and both the DfT and AECOM will process your personal data in accordance with the Data Protection Act (DPA) 2018, and the General Data Protection Regulation (GDPR).

Information you provide including personal information in response to the survey will only ever be published in aggregate form or anonymised. We comply with all legislation governing the protection of personal information, including the DPA and the GDPR. We will only use your personal information for the purpose for which it has been given and the information you provide will be kept secure.

Further details of how AECOM process your personal data provided during the survey and for details of how you can exercise your rights are available at https://aecom.com/privacy-policy/

For DfT's privacy policy, please visit the 'Personal information charter' page on the .GOV website https://www.gov.uk/government/organisations/department-for-transport/about/personal-information-charter

About you: The following questions are so we can understand the profile of the drivers who respond to this survey.

S1 **Which of these age groups are you in?** *Tick one only*

18 – 24	◯ 1
25 – 34	◯ 2
35 – 44	◯ 3
45 – 54	◯ 4
55- 59	◯ 5
60 – 64	◯ 6
65 +	◯ 7
Prefer not to say	◯ 8

S2 **To which gender identity do you most identify?** *Tick one only*

Male	◯ 1
Female	◯ 2
Prefer another term	◯ 3
Prefer not to say	◯ 4

S3 **Are you?** *Tick one only*

English / Welsh / Scottish / Northern Irish / British	◯ 1
From outside of the United Kingdom	◯ 2

Q1 **Where do you prefer to park overnight when away from base?** *Tick one only*

Designated truckstop / Motorway Service Area (MSA) that charges parking fees	○ 1
Free truck parking near facilities eg roadside service area	○ 2
In a lay-by	○ 3
At an industrial estate	○ 4
Other	○ 5

Q2 **What are the most important factors that deter or stop you using an overnight truck park that charges parking fees?**

	Not at all important	Not that important	Quite important	Very important
Company won't cover the cost / full cost	○	○	○	○
Tend not to be worth the money	○	○	○	○
Not enough spaces available	○	○	○	○
Food not good enough	○	○	○	○
Wash / shower / toilets not good enough	○	○	○	○
Security not good enough	○	○	○	○
Other	○	○	○	○

Q3 **What features do you consider the most important when using an overnight truck park that charges parking fees?**

	Not at all important	Not that important	Quite important	Very important
Convenient location to route	○	○	○	○
Security fence	○	○	○	○
Security staff	○	○	○	○
CCTV	○	○	○	○
Controlled gate entry	○	○	○	○
Security lighting	○	○	○	○
Good value food	○	○	○	○
Launderette	○	○	○	○
Well maintained toilets and showers	○	○	○	○
Availability of plug-in power for the freezer unit	○	○	○	○
Vehicle wash facilities	○	○	○	○
Driver's lounge / communal space	○	○	○	○
Fuel	○	○	○	○
Online booking	○	○	○	○
Prayer room	○	○	○	○
Segregated male / female facilities	○	○	○	○
Wi-Fi	○	○	○	○
Gym	○	○	○	○
Other	○	○	○	○

Q4 **What features do you consider the most important when looking for a daytime roadside stop (e.g. for a 45 minute tacho break)?**

	Not at all important	Not that important	Quite important	Very important
Hot food	○	○	○	○
Shop	○	○	○	○
Toilets	○	○	○	○
Litter bins that are emptied regularly	○	○	○	○
Seating area	○	○	○	○
Secure parking	○	○	○	○
Convenient location	○	○	○	○
No parking fee	○	○	○	○
Other	○	○	○	○

Q5 **In your opinion, in the last five years, has the availability of good quality overnight truck parking (free or with a charge) in the UK.....** *Tick one only*

- ....increased? ○ 1
- ....decreased? ○ 2
- ....stayed about the same? ○ 3
- Don't know ○ 4

Q6 **In your opinion, in the last five years, has truck crime in the UK.....** *Tick one only*

- ....increased? ○ 1
- ....decreased? ○ 2
- ....stayed about the same? ○ 3
- Don't know ○ 4

Q7 **Would you like to be part of a National Highways panel of freight drivers so that it can seek drivers' opinion on important topics such a truck parking, driver welfare, and provision for lorries on the National Highways network?** *Tick one only*

- ◯ Yes
- ◯ No

Q8 **Please provide the below information so that National Highways can send you more information about the driver panel.**

Name	
E-mail address	
Telephone number	

Appendix G.

Focus group discussion guide

Appendix G. Focus group discussion guide

Driver Discussion Group – Lymm Truckstop

This topic guide has been designed to provide structure to the interviews – **it is NOT intended to be used as a script and is not intended to be shared with the participants**. To help the moderator, prompts have been included (throughout the guide see 'PROBE'); these are suggestions of questions that can be asked if appropriate to probe deeper into the respondents' views.

Background

- Self / AECOM / independent consultancy and conducting lorry parking research on behalf of the Department for Transport. This is in addition to a national driver survey that we are currently conducting and data from that survey and this research is being analysed to inform future decisions by the Department for Transport.
- Department for Transport wants to produce an accurate assessment of provision and demand of existing lorry parking provisions as well as understand what the future lorry parking provisions will look like and what the driving factors for this are. They also want to understand the user experience so that they can plan and provide better parking facilities to meet the social needs of drivers and the economic needs of the country. This will ensure that future decision-making supports the needs of the freight sector.
- Purpose of the focus group: To expand on the topics raised in the current driver survey and explore drivers' opinions on on-site parking facilities
- Emphasise there are no right or wrong answers.
- Emphasise confidentiality – recording interview for accuracy of reporting. Recording will not be passed on to anyone outside the research team or the client team. Findings are aggregated for reporting. Stress anonymity in reporting of findings.
  - Mobiles on silent
  - How the discussion will work (contributing to discussions, materials being shared)
  - Consent form check
  - Incentives – All respondents will receive a £20 cash incentive on completion of the group
  - Group will last approximately 60 minutes

All feedback today and the session will remain anonymous.

Introductions

- Name?
- Where are they based?
- How many nights away on average?
- Where are their typical trips? UK? Europe?
- How many years driving lorries?
- How frequently do you drive lorries on average? (Per week)
- What journey are you conducting today?
- What is your pet hate when driving?

Broad view on on-site parking facilities

Exercise: what do you look for when looking to stop overnight?

Word exercise on post-it notes to stick on the flip chart in the room

- What do they define as a good on-site parking facility?
  - What features?
  - Why are these features important?
  - Name the best on-site parking facility
  - Why do they say this?
- What do they define as a poor on-site parking facility?
  - Why do they define them as poor?
  - What features are missing?
  - Name the worst on-site parking facility
  - Why do they say this?
- Of all the aspects mentioned, which are their top 3 based on importance to them?
  - Why do they say that?
  - Does it change by location?
  - Why? Why not?
  - Is there a consensus by the group on top 3 required based on importance?

Value for money

- What does ‘value for money’ mean to them?
- Does this impact their choice of location?
  - Why? Why not?
- Which on-site parking facilities offer good value for money?
- Which on-site parking facilities offer poor value for money?
  - Why? Why not?
  - What needs to be improved?

MSAs v independent truckstops

- Have they stopped at independent truckstops rather than MSAs?
  - Why? Why not?
- How do they compare to MSAs?
  - PROBE: How do they differ?
  - Positive?
  - Negative?
  - PROBE: Value for money? Is it better or worse value for money?
  - PROBE: What facilities are available? Are they better or worse?
  - PROBE: what is the security like? Tighter or worse?

Improving roadside facilities

- How can facilities be improved?
- Which is more important:
  - More roadside locations on the network?
  - Improving existing roadside facilities?
  - A mixture of both?
- If more roadside facilities on the network
  - Where do they need to be?
  - How many need to be added?
- If improve existing facilities
  - How?

- Which facilities in particular?
- Are some more important than others?
- Why? Why not?
- Is there a consensus amongst the group?

- If it's a mixture of both, then how do they get the balance?
  - Is one still more of a priority than the other?
  - What needs to be improved first?

Locations

- What do they think about the distribution of roadside facilities across the UK?
  - Are there areas that need more compared to others?
  - Where? Why?
- Do they hear from colleagues or people in the industry about roadside facilities elsewhere?
  - What do they hear?

Off-road sites

- Have they ever parked in sites off road? Away from official on-site parking facilities?
  - PROBE: Where? Laybys? Industrial estates? Scrap ground? Behind service stations?
  - Why? Why not?
  - PROBE: Original plan or unplanned circumstance?
  - Regular occurrence or ad-hoc?
- Are there specific areas across the UK where this happens more?
  - PROBE: Why does this happen?
  - PROBE: What needs to change for this to reduce?

Responsibility

- Who do they think is responsible for improvements at on-site parking facilities?
  - Management of on-site parking facilities?
  - Government?
  - Freight industry?
  - Local community?

- Should more be done by hauliers themselves?
  - To provide investment?
  - To provide sites of their own?

Driver recruitment

- Does the current on-site parking infrastructure in the UK impact driver recruitment?
  - How does it?
  - Why? Why not?
- Does the current on-site parking infrastructure in the UK impact driver retention?
  - How?
  - Why? Why not?
- Are there any aspects of the current facilities that impact some drivers more than others?
  - If yes, to what extent do they impact?
  - Why?
  - PROBE: Gender
  - PROBE: Ethnicity
  - PROBE: Any other differences
  - What needs to improve / change?

Next steps

- Have they completed the driver survey?
- Findings will be fed back to the Department for Transport and National Highways to feed into their future planning

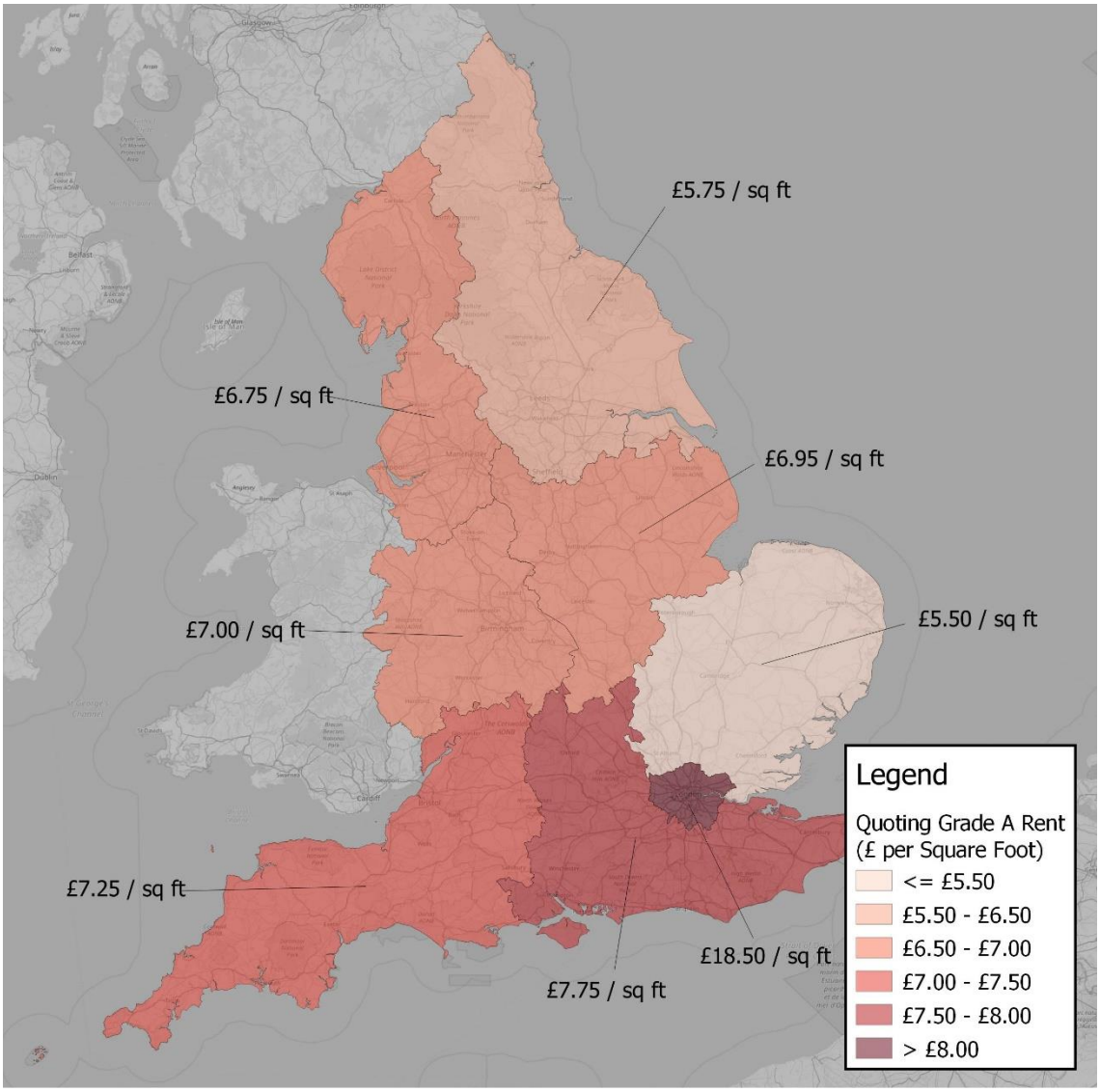
Thank and close

AECOM

Appendix H.

Land value: map of grade A shed space cost by region in England

Appendix H. Land value: map of grade A shed space cost by region in England



Based on Savills' 2019 research

- Link to Savill's article for the North West: https://www.savills.co.uk/research_articles/229130/284244-0
- Link to Savill's article for Yorkshire and the North East: https://www.savills.co.uk/research_articles/229130/284247-0
- Link to Savill's article for the East Midlands: https://www.savills.co.uk/research_articles/229130/284239-0

- Link to Savill's article for the West Midlands: https://www.savills.co.uk/research_articles/229130/273828-0
- Link to Savill's article for the South West: https://www.savills.co.uk/research_articles/229130/284249-0
- Link to Savill's article for London and the South East: https://www.savills.co.uk/research_articles/229130/284238-0
- Link to Savill's information for the East of England: https://www.savills.co.uk/research_articles/229130/284250-0