

Chapter 4: Regional Analysis



4 Regional Analysis

4.1 Introduction

This chapter provides a regional analysis of the study results. By breaking England into the nine regions it aims to inform stakeholders at a more detailed level. A number of the outputs in this chapter also present data at the local authority level within each region. This further segmentation of the results enables the analysis to be more targeted in its approach and identify the specific locations of greatest demand for lorry parking in each region.

4.1.1 Structure of Regional Analysis

All of the nine regions have a consistent format. The analysis is structured to guide the reader through a logical narrative. The sequence of outputs therefore aim to build up the overall picture of lorry parking demand, from the base information through to more complex presentations of multiple layers of data. As an outline, the analysis of each region has the following structure:

- **Regional Overview:** Three tables are used to depict base information such as the facilities, utilisation and crime totals. These are important to provide the context for each region before it is discussed in detail.
- **Facilities and Capacity:** There are two maps that illustrate capacity by specific location and within each local authority. This helps the reader to understand the options that were available to drivers and the locations in relation to the SRN.
- **On-Site Parking:** This is used to start the process of understanding demand. It therefore maps the on-site utilisation of each local authority within the region (as a percentage of total capacity). This will start to highlight areas that do not have enough capacity to accommodate on-site parking demand.
- **Off-Site Parking:** The analysis is separated into three sections with corresponding maps, including:
 - i. A map that shows the total number of vehicles that were parking off-site in each local authority of the region. This shows the overall extent of off-site parking.
 - ii. A more detailed analysis showing the specific location and type of off-site parking. This includes a differentiation between lay-bys, industrial estates and types of vehicle. Due to the level of detail means the region must be broken down into a number of maps¹⁰. The maps also include the individual on-site parking locations and depict how full they were. This helps to identify patterns of off-site parking compared to on-site availability.
 - iii. A hotspots map is used to identify locations where there was high off-site parking (25 vehicles or more, within a 5km radius of each other). This is a focussed analysis used to uncover specific locations of high off-site parking within the large area of a region.
- **Excess Demand:** This analysis presents an overall situation of demand for each local authority in the region, in terms of the total vehicle numbers that needed to park (on and off-site combined) compared to total capacity. Excess demand is important to identify local authorities, where even if off-site parking could be moved to on-site locations, there would not be enough capacity. Excess demand is therefore an indicator for potential required development, and at a minimum it is an indicator that there is an issue within the region.
- **Crime:** This is used to add a further level of comparison to demand issues¹¹. The total number of crimes is highlighted in each local authority of the region. A further map is then used to show specific locations of where crime was happening in relation to the hotspots of off-site parking and utilisation of on-site parking. This helps to understand any relationship between location of crime and demand.

¹⁰ The number of maps depends on the size of the region

¹¹ All crime data sourced from Truckpol 2010

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4.6 North West

List of Key Facts:

1. Had the highest regional capacity in England with 2,213 spaces
2. Overall utilisation was 55%, however there were shortages of space in some urban areas such as Merseyside and Greater Manchester
3. There was a high level of off site parking in Trafford Park, west of Manchester and around Carlisle
4. The off site parking hotspots were concentrated along the M6 at junctions (from north to south) with the A69, A66, between Cornforth and Lancaster and all the way south of the M58
5. Approximately 40% of all parked vehicles in the region were parking off site (756 vehicles)
6. There were 278 recorded freight crimes in 2010, costing the industry £6.7 million. Crime was concentrated in south of the region

4.6.1 Overview

The base information contained in the following Tables 4.13, 4.14 and 4.15 will be analysed in detail throughout the North West regional analysis. This will include the use of maps, graphs and written commentary as described in section 4.1.1 Structure of Regional Analysis.

Table 4.13 Overview of facility types and capacity in the North West region

Name	Type	Overnight Cost (£s)	Capacity
Birch Services Eastbound	MSA	£20 or less but more than £15	100
Birch Services Westbound	MSA	£20 or less but more than £15	100
Blackburn With Darwen Services	MSA	£15 or less but more than £10	16
Bolton Lorry Park, Bolton Metro	Independent	£5 or less	25
Bolton West Services Northbound	MSA	£10 or less but more than £5	40
Bolton West Services Southbound	MSA	£10 or less but more than £5	20
Burton-In-Kendal Services	MSA	£15 or less but more than £10	12
Burtonwood Services M62	MSA	£15 or less but more than £10	20
Charnock Richard Services Northbound	MSA	£20 or less but more than £15	26
Charnock Richard Services Southbound	MSA	£20 or less but more than £15	34
Chester Services	MSA	£25 or less but more than £20	60
Crewe Lorry Park Cowley Way	Independent	£15 or less but more than £10	120
Diggles Cafe	Independent	£15 or less but more than £10	32
Ellesmere Truck Stop	Independent	£10 or less but more than £5	40
Friday Street Lorry & Car Park	Local Authority	£5 or less	10
Golden Fleece Services	Independent	£10 or less but more than £5	80

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Heywood Distribution Park	Independent	£10 or less but more than £5	300
Junction 38 Truckstop (Tebay)	Independent	£10 or less but more than £5	80
Junction 7 Business Park	Independent	£10 or less but more than £5	25
Killington Lake Services Southbound	MSA	£20 or less but more than £15	18
Kingstown Truck Park (Truckstop Carlisle)	Independent	£10 or less but more than £5	40
Knutsford Services Northbound	MSA	£25 or less but more than £20	50
Knutsford Services Southbound	MSA	£25 or less but more than £20	50
Lancaster (Forton/Moto Truckers Lounge) Services Northbound	MSA	£15 or less but more than £10	32
Lancaster (Forton/Moto Truckers Lounge) Services Southbound	MSA	£15 or less but more than £10	26
Lets Eat Cafe	Independent	£10 or less but more than £5	11
Lymm (Poplar 2000) Moto Service	MSA	£15 or less but more than £10	300
Nightowl Truckstop Carlisle	Independent	£20 or less but more than £15	80
Penrith Truckstop	Independent	£15 or less but more than £10	130
Sandbach Services Northbound	MSA	£30 or less but more than £25	20
Sandbach Services Southbound	MSA	£25 or less but more than £20	20
Southwaite Services Northbound	MSA	£20 or less but more than £15	38
Southwaite Services Southbound	MSA	£20 or less but more than £15	50
Tebay Services Northbound	MSA	£10 or less but more than £5	19
Tebay Services Southbound	MSA	£10 or less but more than £5	19
Todhills Services Northbound	TRSA	Free	15
Todhills Services Southbound	TRSA	Free	5
Truckhaven (Carnforth) Ltd	Independent	£10 or less but more than £5	150
Total			2,213

Table 4.14: Overview of on-site utilisation, off-site parking and excess demand in the North West region

Utilisation						
Vehicle Type	UK Artic	non-UK Artic	UK Rigid	non-UK Rigid	Total	% Utilisation
On-site parking	978	83	165	2	1,228	55%
Off-site Parking	Lay-bys	237	26	12	1	276
	Industrial Estates	377	75	27	1	480
Excess Demand				-229		

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Table 4.15: Overview of 2010 reported road freight crime in the North West region

Reported Freight Crime ²⁰					
Number of recorded crimes in 2010	278				
Severity Index ²¹	1	2	3	4	5
Number of crimes recorded	9	245	22	0	2
Value of freight crimes recorded				£1,197,135*	
Estimated total value of freight crimes recorded				£6,950,000**	

*Note that only reported costs are included in this data. Not all crimes were given an associated cost due to information not being available.

**In 2008 Truckpol estimated an average incident to cost £25,000. This base figure is used to estimate the total cost of freight crime in the region. This accounts for where cost information was not available.

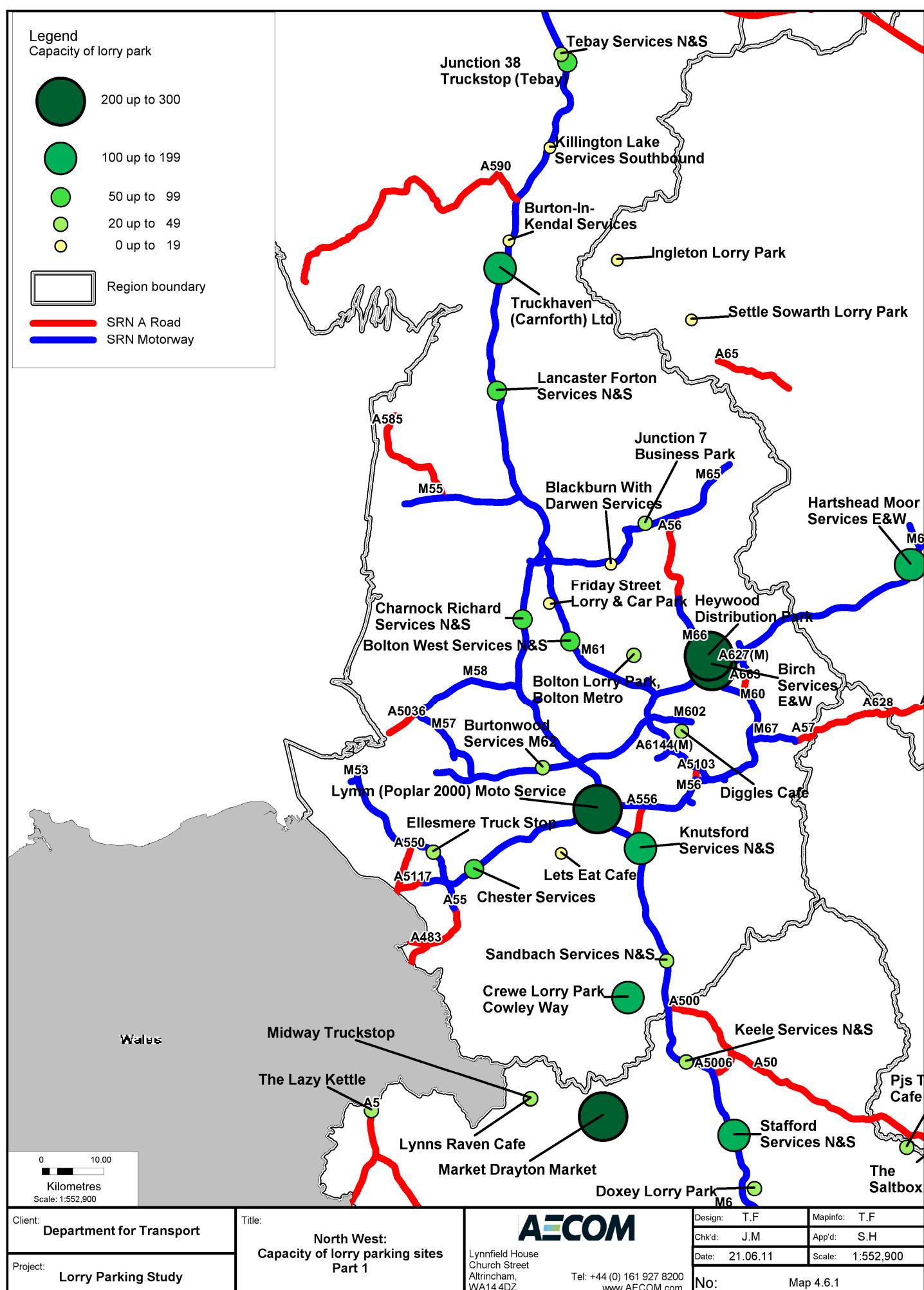
4.6.2 Facilities and Capacity

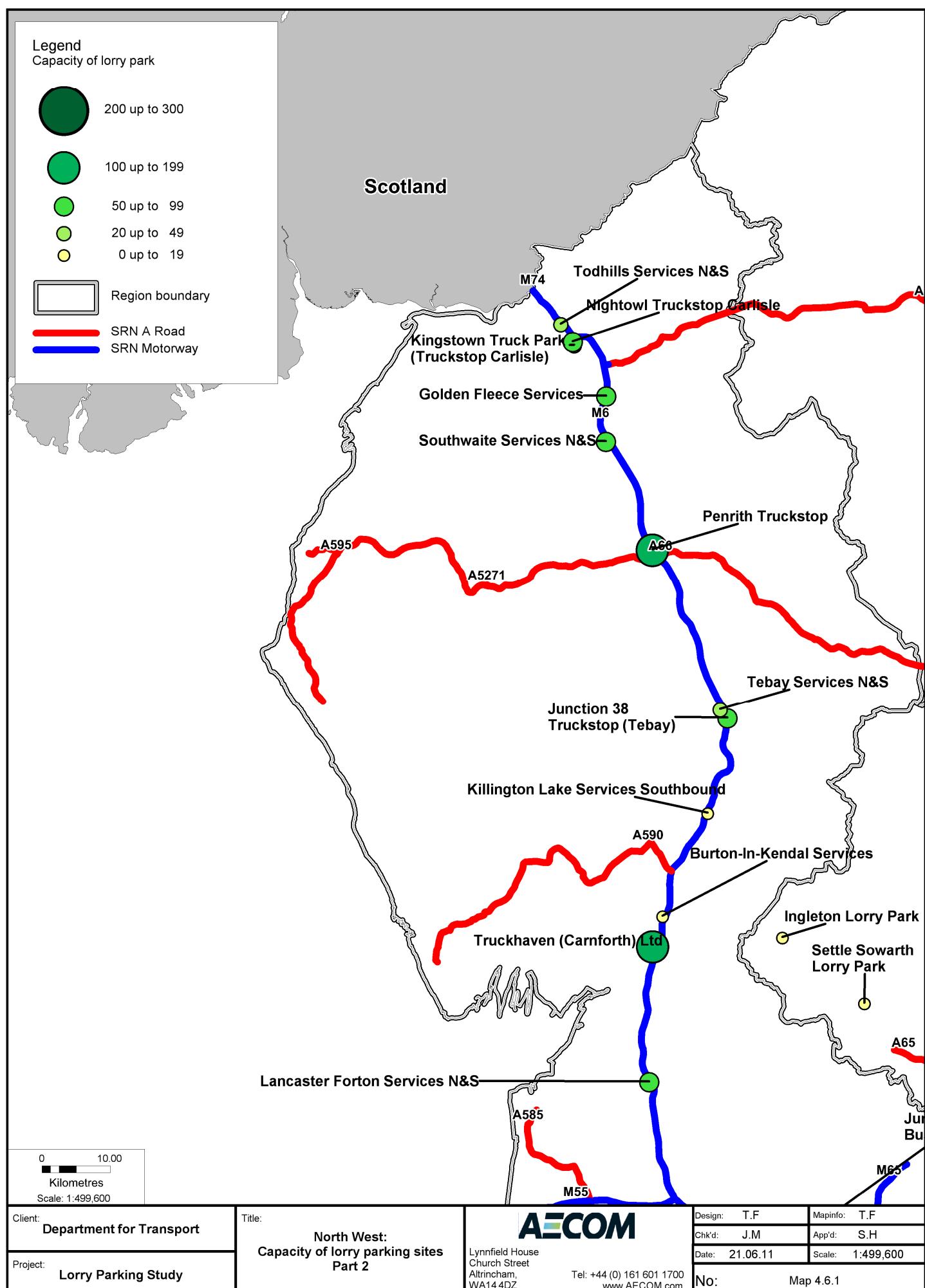
The North West had 2,213 lorry parking spaces spread across 38 on-site lorry parking locations throughout the region. 25 of the sites had fewer than 50 spaces and seven had 100 spaces or more. Map 4.6.1 shows that the parking provision was generally focused along the M6 and just north of Greater Manchester. There was a mix of TRSAs, MSAs and Independent lorry parking sites. The majority of the overnight parking was also £15 or under.

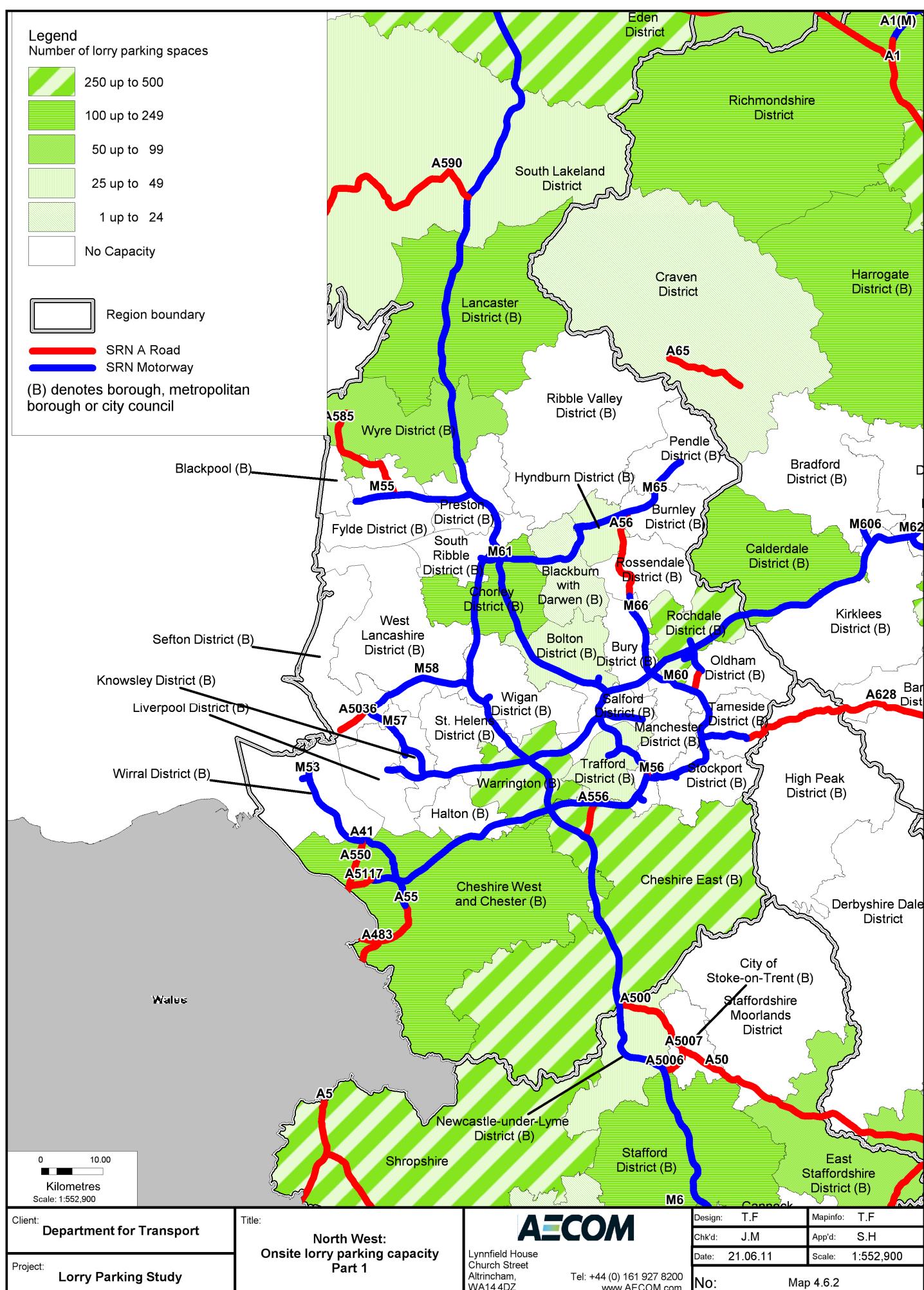
As shown in map 4.6.2 Cheshire East, Warrington, Rochdale and Eden districts provided the largest number of spaces. Carlisle, South Lakeland, Wyre, Chorley, Bolton, Blackburn with Darwen, Hyndburn, Trafford and Cheshire West and Chester also had some capacity. Many urban areas had no provision at all which could potentially lead to high levels of off-site parking if, for example there were any freight hubs located nearby. This was the case in Merseyside and much of Greater Manchester.

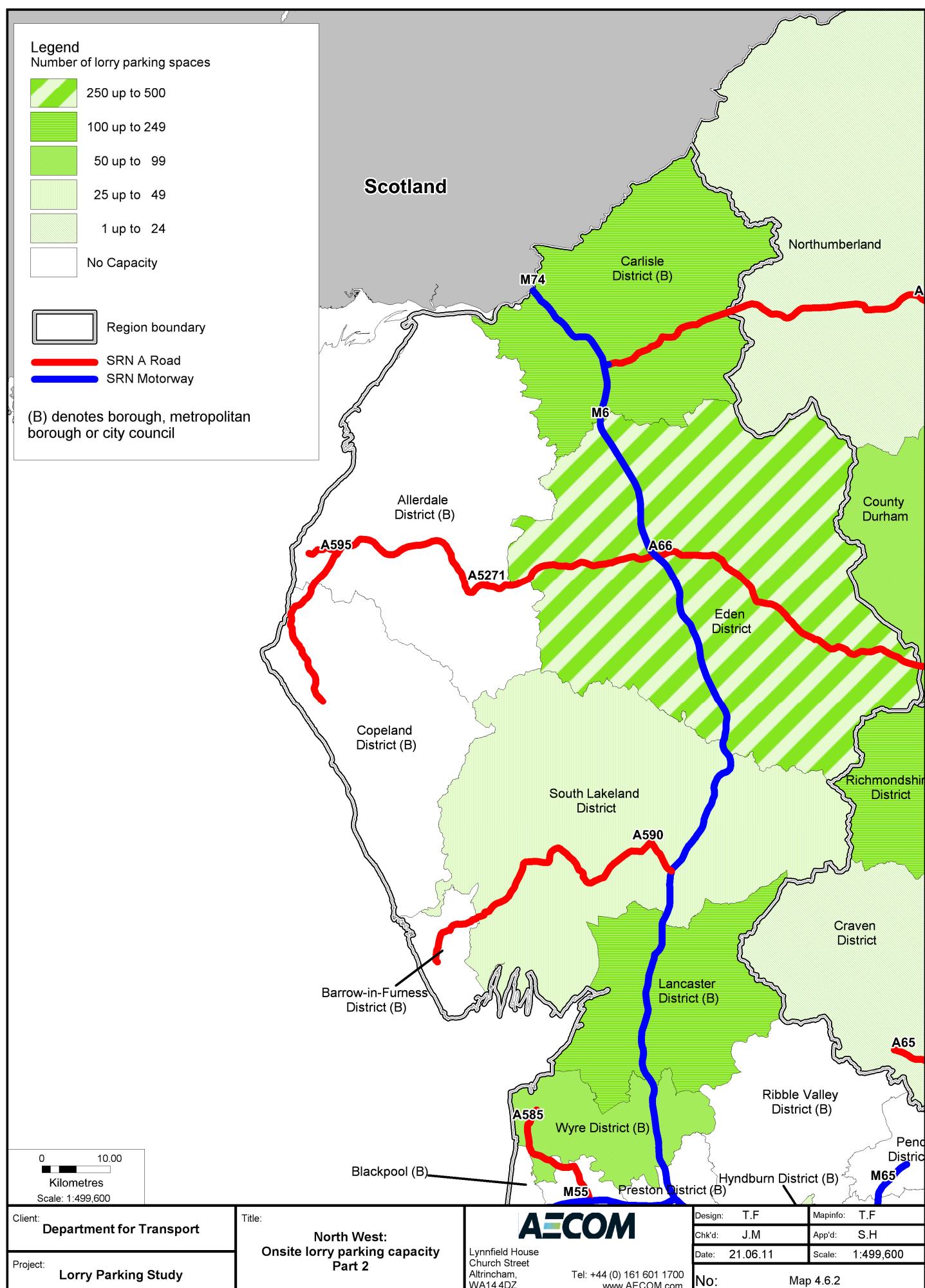
²⁰ Truckpol 2010

²¹ See Appendix 5 for explanation of crime severity index









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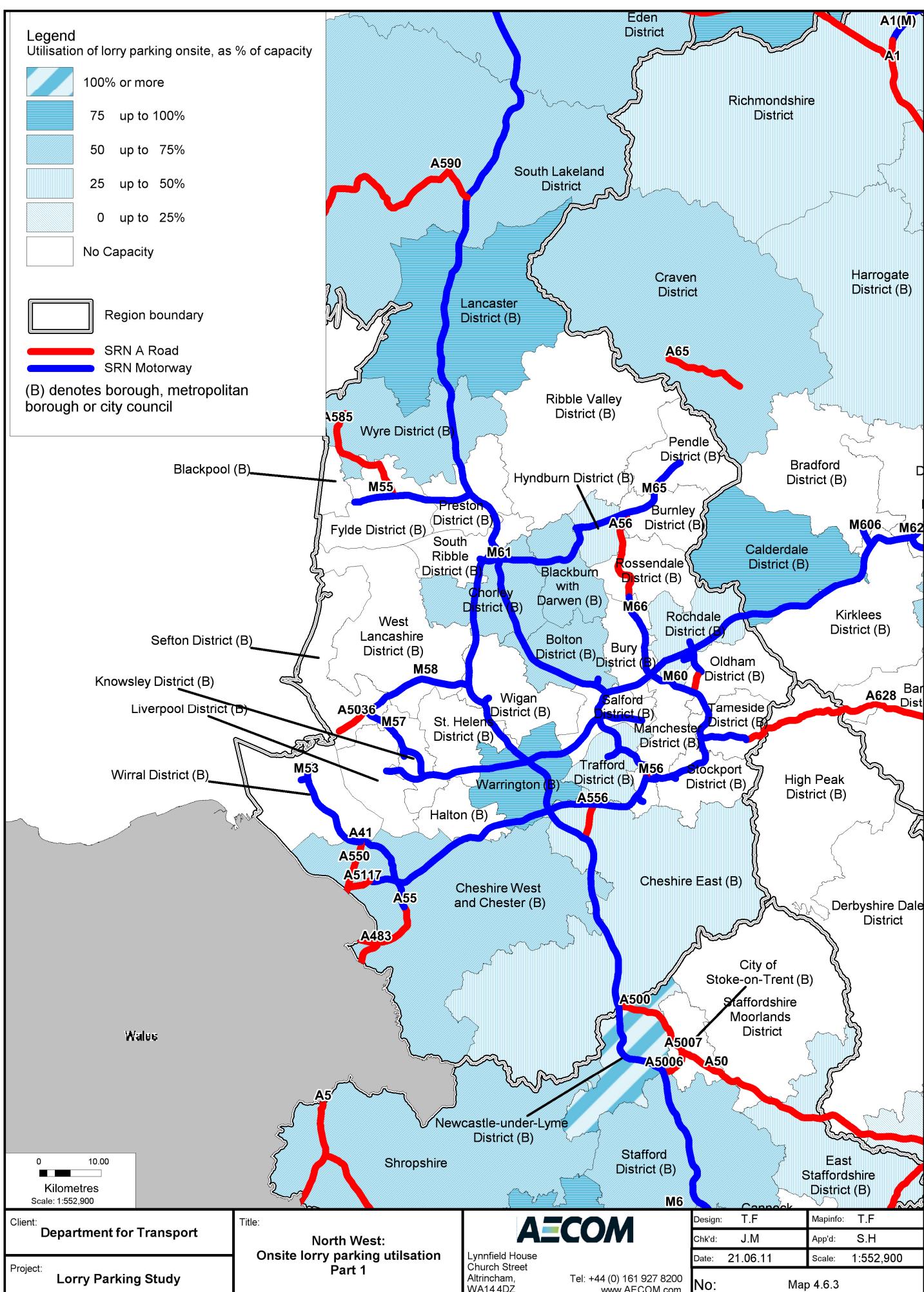
4.6.3 On-site Parking

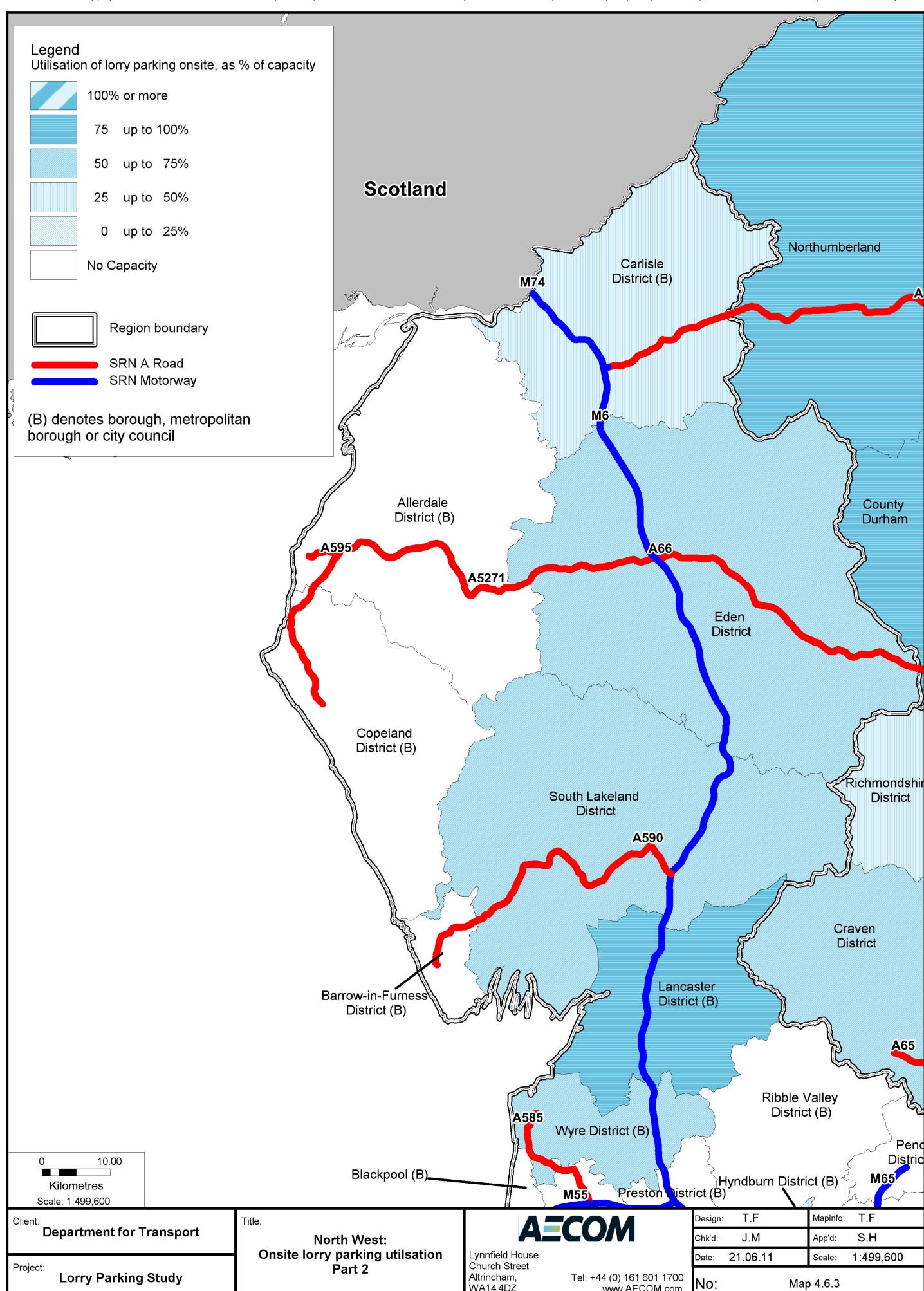
When assessing the level of on-site utilisation in the North West, Table 4.14 (see section 4.6.1) shows that overall lorry parking was 55% utilised. This means in certain locations spare capacity for parking on-site would have been available.

Around 80% of vehicles counted on-site were UK registered articulated vehicles. These are generally used for long distance journeys and would be more likely to be parking overnight than in a local yard. At the local authority level (see map 4.6.3) it was clear that Warrington and Lancaster were busier than the rest of the region. Given that utilisation was recorded as 75 – 100% in both these authorities and the surveys were taken on what were deemed to be average days, it is conceivable that the lorry parks in these areas are sometimes over-subscribed. This would contribute to vehicles parking off-site.

With regards to other local authorities in the region, Cheshire West and Chester, Chorley, Bolton, Blackburn with Darwen, Wyre, South Lakeland and Eden districts were 50 – 75% utilised. This shows that there was demand for parking in certain areas of the region as well as pockets of spare capacity. Cheshire East, Trafford, Rochdale, Hyndburn and Carlisle districts were 25 - 50% utilised, this indicates that there was significant spare capacity in these areas.

The hotspot and on site utilisation map (4.6.9) shows that only five of the 38 lorry park sites, Lymm, Burtonwood, Friday Street, Truckhaven and Junction 38, in the region were more than 75% utilised. This shows that although there were local authorities with high usage, and a shortage of supply, there was also a surplus of provision elsewhere in the region. This indicates that in some cases where there was off-site parking there may be scope to encourage drivers to use lorry parking sites nearby that have spaces to accommodate them.





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4.6.4 Off-site Parking

The maps that analyse off-site parking (see maps 4.6.4, 4.6.5, 4.6.6, 4.6.7, 4.6.8 and 4.6.9 - all immediately after this page) shows that the number of vehicles parking in lay-bys and industrial estates was greatest in the north of the region with smaller amounts to the south. The main local authorities include Carlisle and Eden Districts and the south in Cheshire East and Trafford Districts.

Table 4.14 (see section 4.6.1) shows that around 40% of vehicles parking in the North West were parking off-site despite lorry parking sites being surveyed as only 55% full. This could indicate that drivers were not using sites in order to save money, and that the facilities and security may not have been sufficient enough to attract them.

Map 4.6.4 shows which local authorities had high levels of off-site parking. More than 75 vehicles were parked either in lay-bys or industrial estates in Cheshire East, Trafford, Eden and Carlisle districts. Map 4.6.4 also shows St Helens, Wigan, Rochdale, Lancaster and South Lakeland districts all had between 25 and 50 vehicles parked off-site.

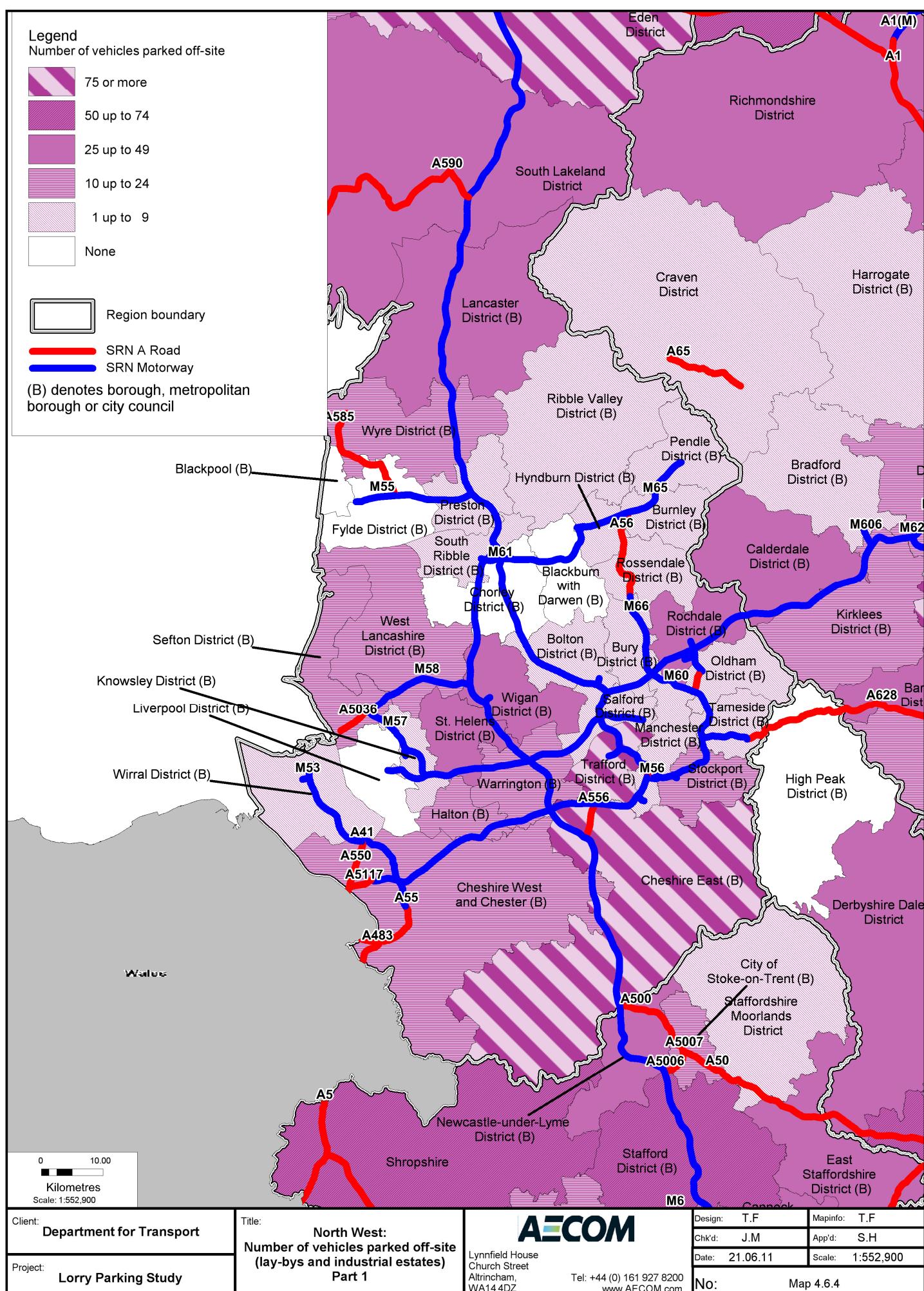
Given the size of some local authorities within the region it is important to understand exactly where the hotspots of off-site parking were. The North West hotspot map (see map 4.6.9) shows six locations where there were more than 25 vehicles parked off-site within in a 5km radius of each other. These were near Carlisle, Penrith, Greater Manchester, Lancaster, Kirkby and the M6 south of Knutsford. There was a final hotspot near to Chester caused by vehicles parking in industrial estates just inside the Welsh border.

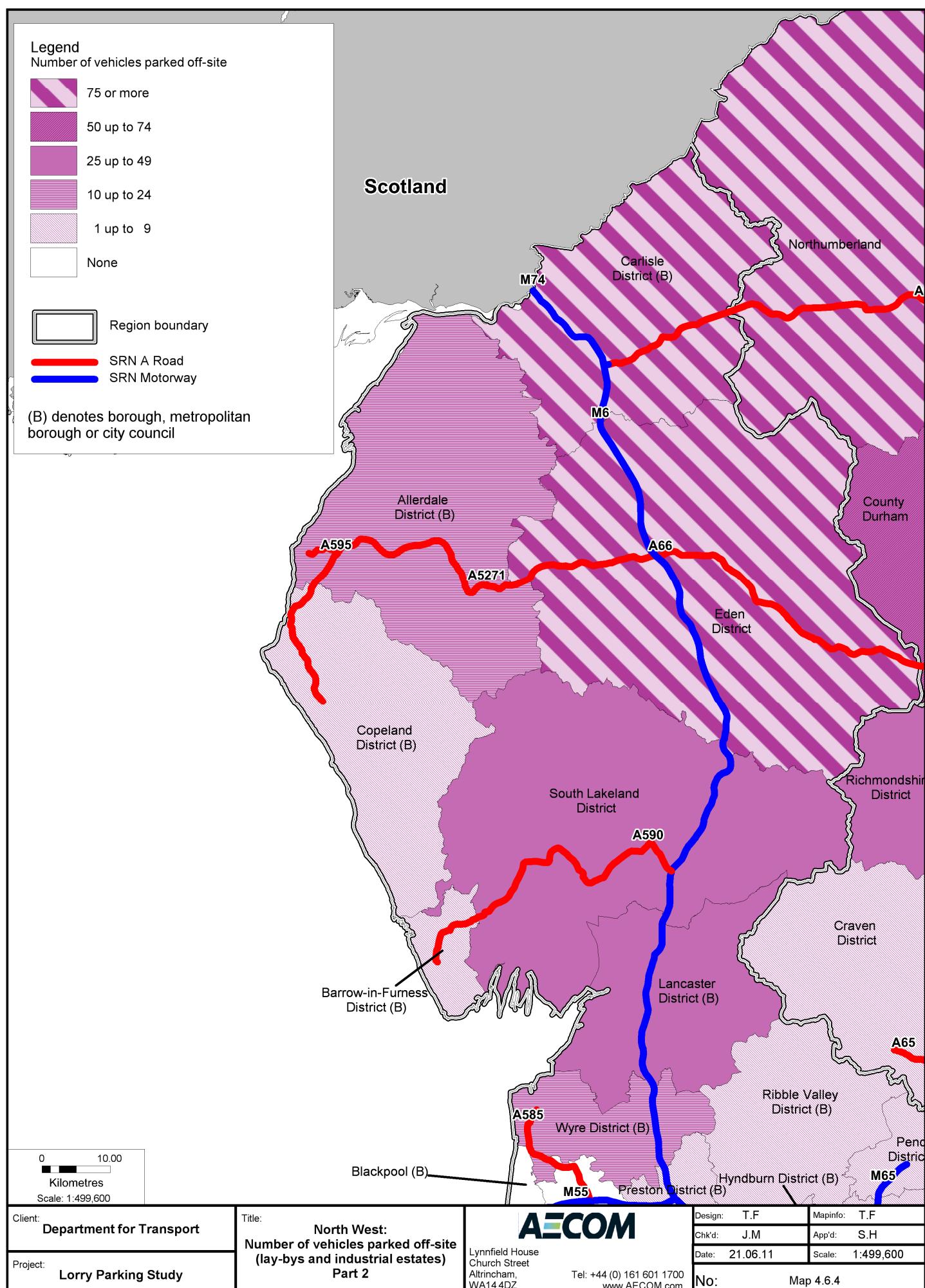
The detailed off-site parking maps (see maps 4.6.5, 4.6.6, 4.6.7 and 4.6.8) shows the exact locations of the lay-bys and industrial estates being used for parking, these can be related back to the hotspot analysis. The Carlisle hotspot was caused by over 70 vehicles parking in the Kingstown Industrial Estate. Anecdotal evidence suggests that enforcement officers have concentrated on this area in the past on a number of occasions, and following periods of enforcement the use of lorry parks increases as drivers try to avoid penalties. However, once the enforcement drops off the vehicles return to parking off-site in the industrial estate and surrounding areas..

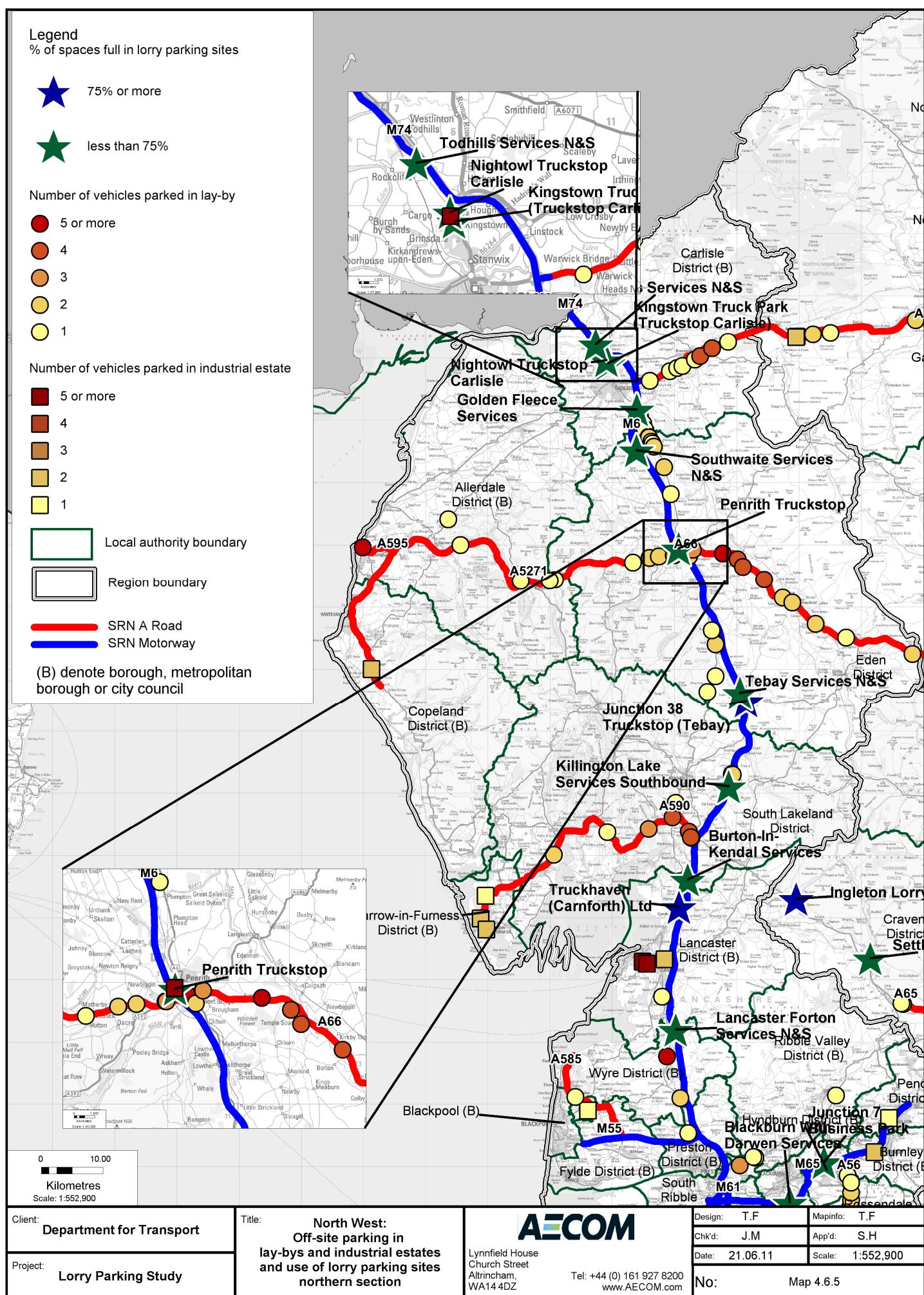
The hotspot near Penrith was caused by vehicles parking in several industrial estates and in lay-bys on the A66. The hotspot in Lancaster was caused by vehicles parking in White Lund and Lakeside Enterprise industrial estates.

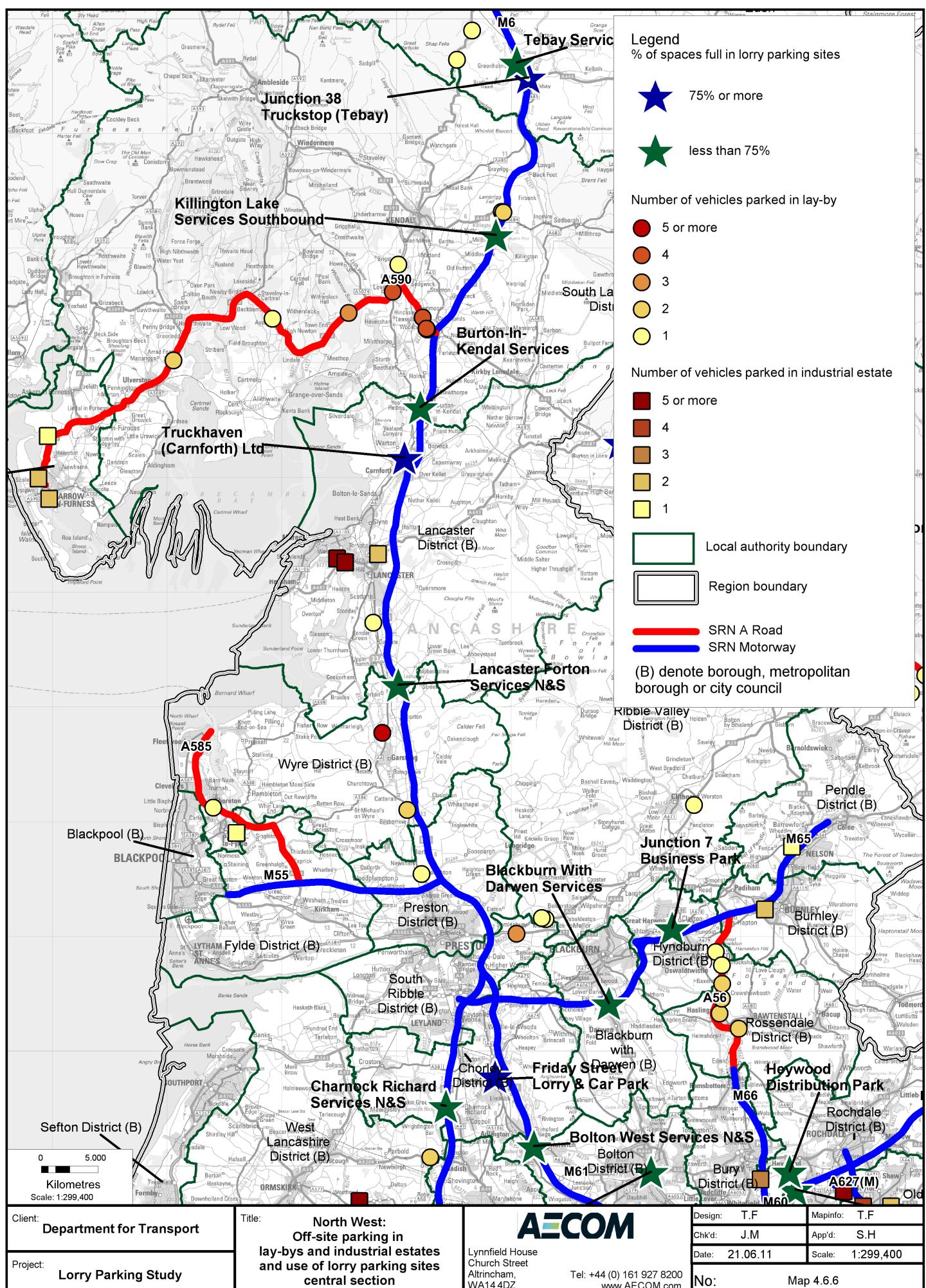
The epicentre of the hotspot in Manchester was caused by vehicles parking in the industrial estates in Trafford Park; these were most likely stopping overnight before completing a delivery nearby, in total over 100 vehicles were parked off-site in this location. This hotspot extends past Rochdale to the east and the M6 / M58 junction to the northwest; this was caused by vehicles parking in numerous industrial estates.

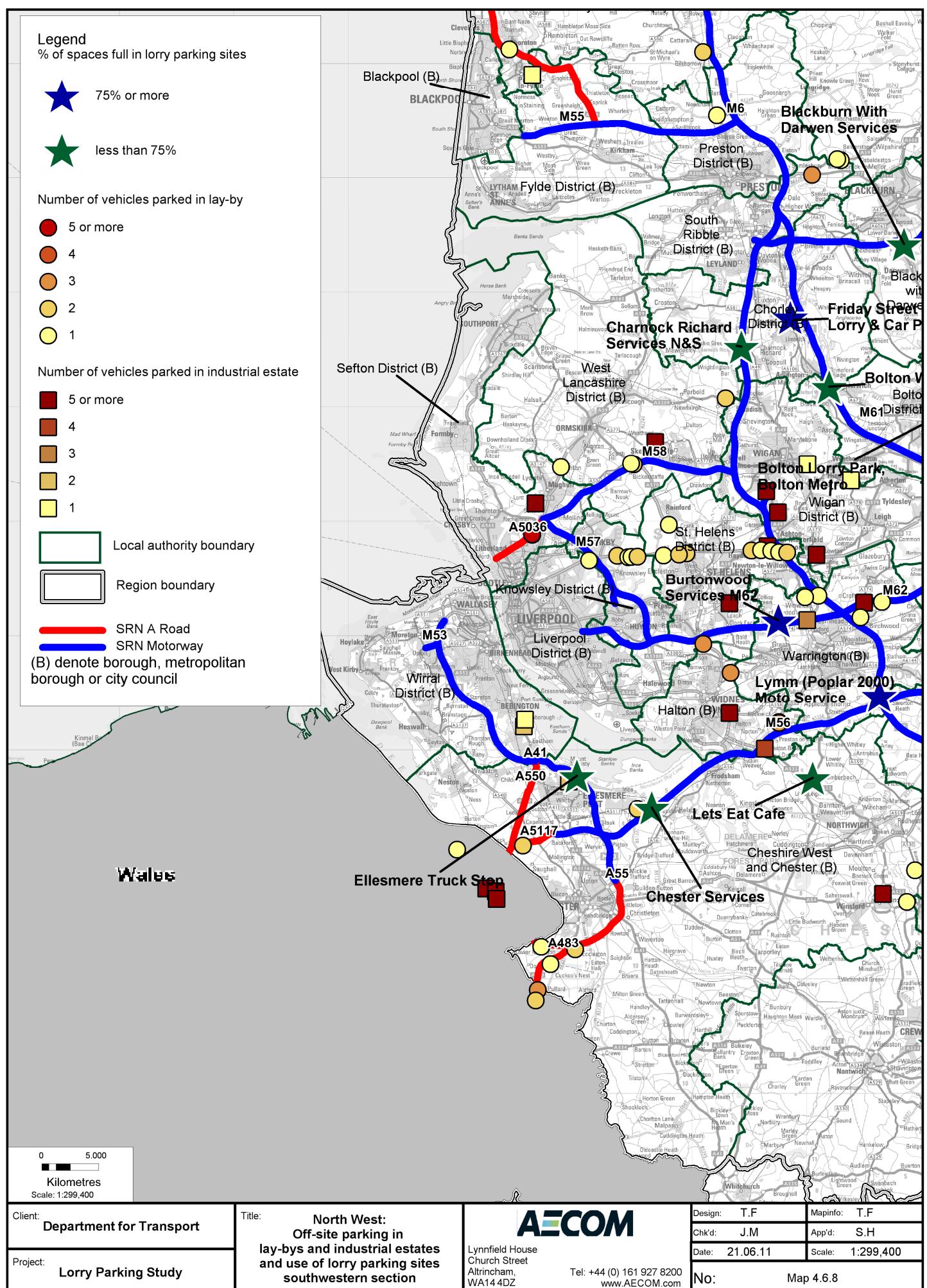
The hotspot south of Knutsford stretches into the West Midlands, the northern part of this was caused by vehicles parking in industrial estates around Middlewich.

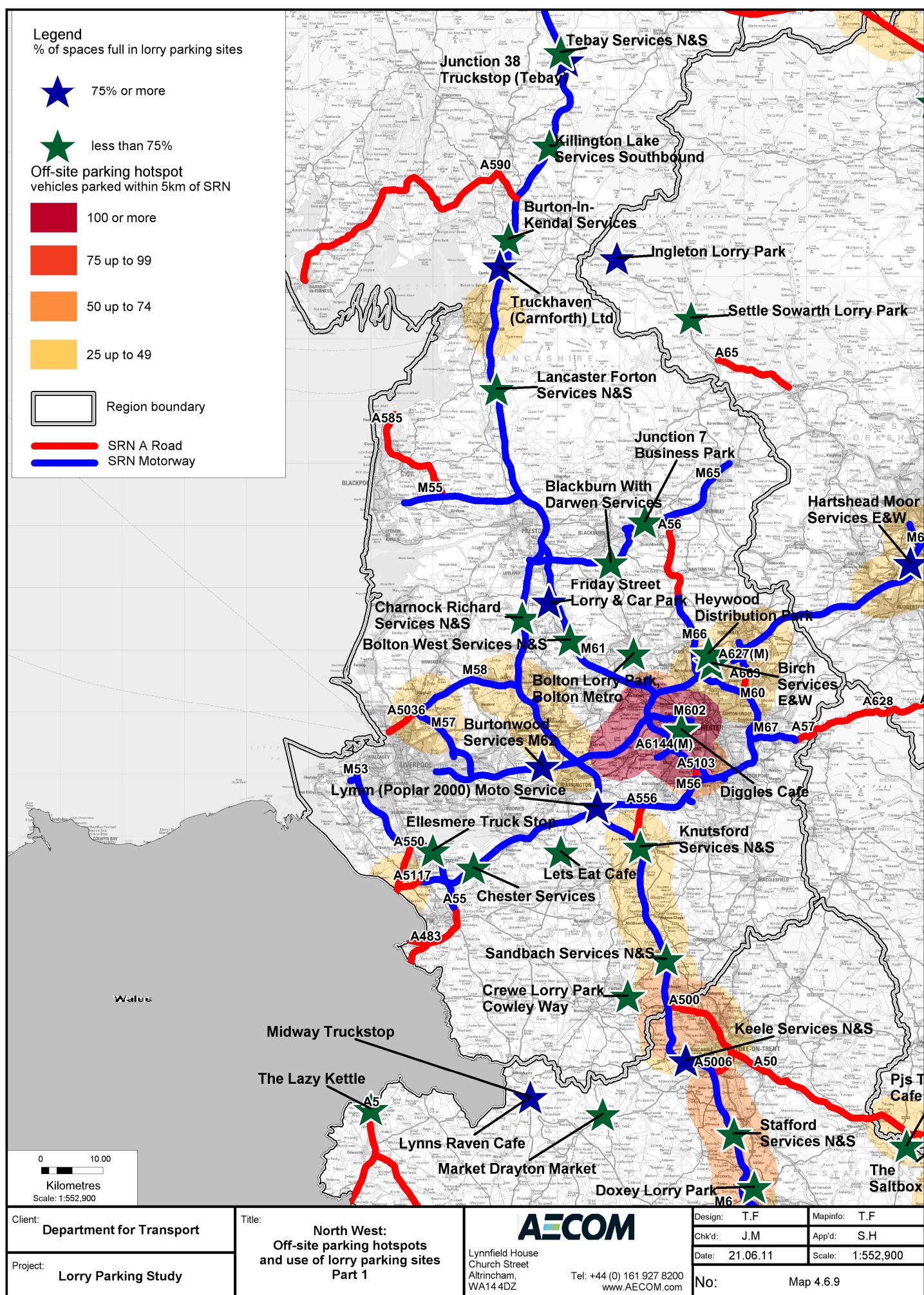


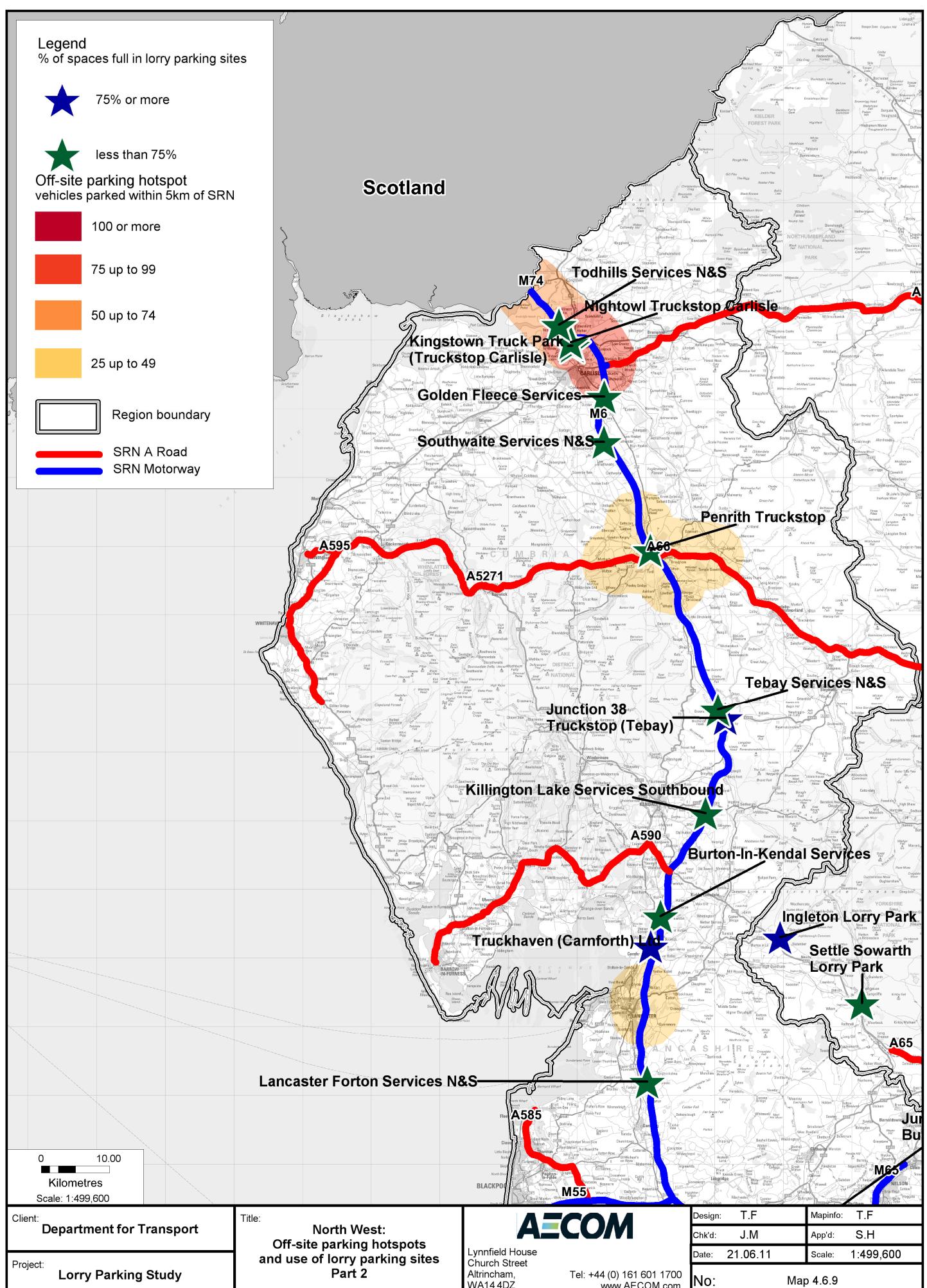










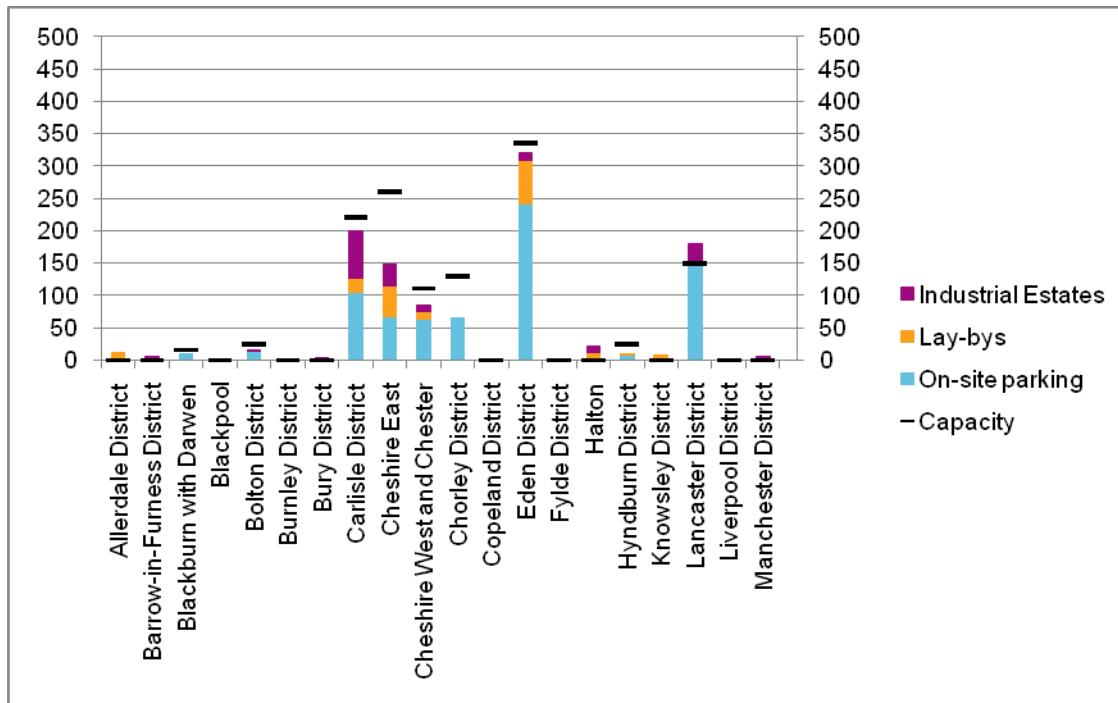


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4.6.5 Excess Demand

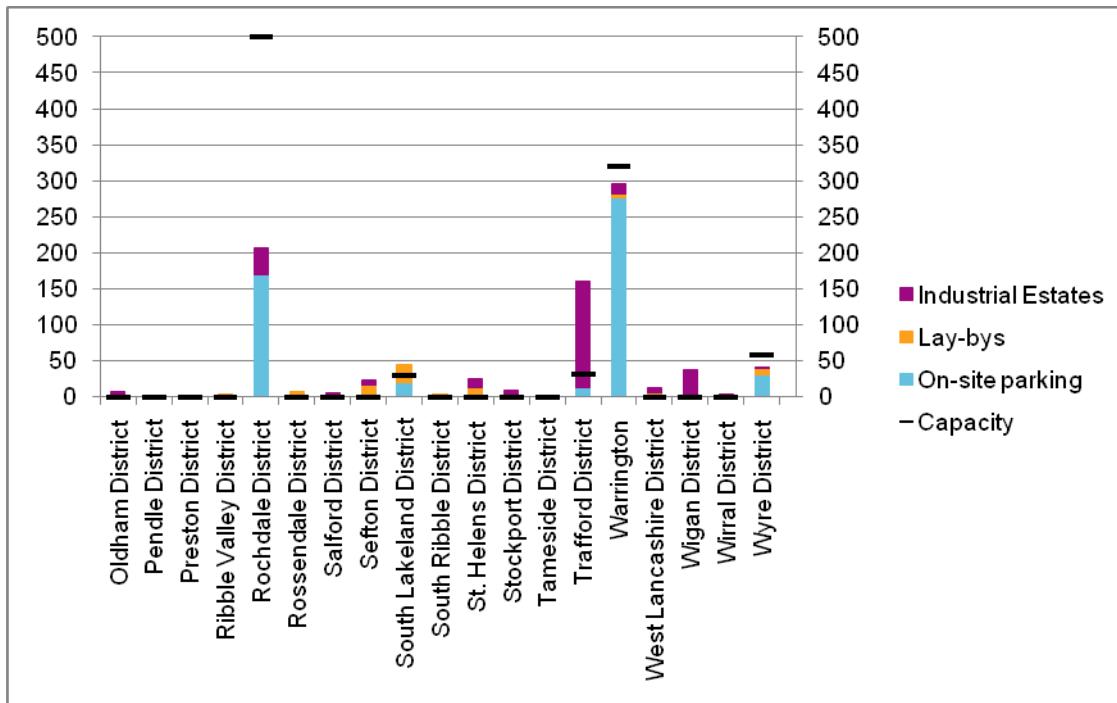
The charts above (figure 4.12 and 4.13) shows the amount of on and off-site parking by local authority. Each column in the chart represents the total vehicles parked in the local authority broken down into on-site, lay-by and industrial estate. The black line denotes the amount of capacity in each authority, and where the column goes above the black line it shows there was an excess of vehicles parked. This chart aims to show whether there was spare capacity in lorry parks to accomodate all the vehicles in the region, and where vehicles were parking. For example, Trafford had some available space on-site, but even if the lorry parks were fully utilised there would still be significant off-site parking. Whereas, the Warrington column is below the black line meaning all vehicles in that authority could have been accomodated on-site.

Figure 4.12: Graph of parking trends across local authorities in North West (A-M)



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Figure 4.13: Graph of parking trends across local authorities in North West (O-W)



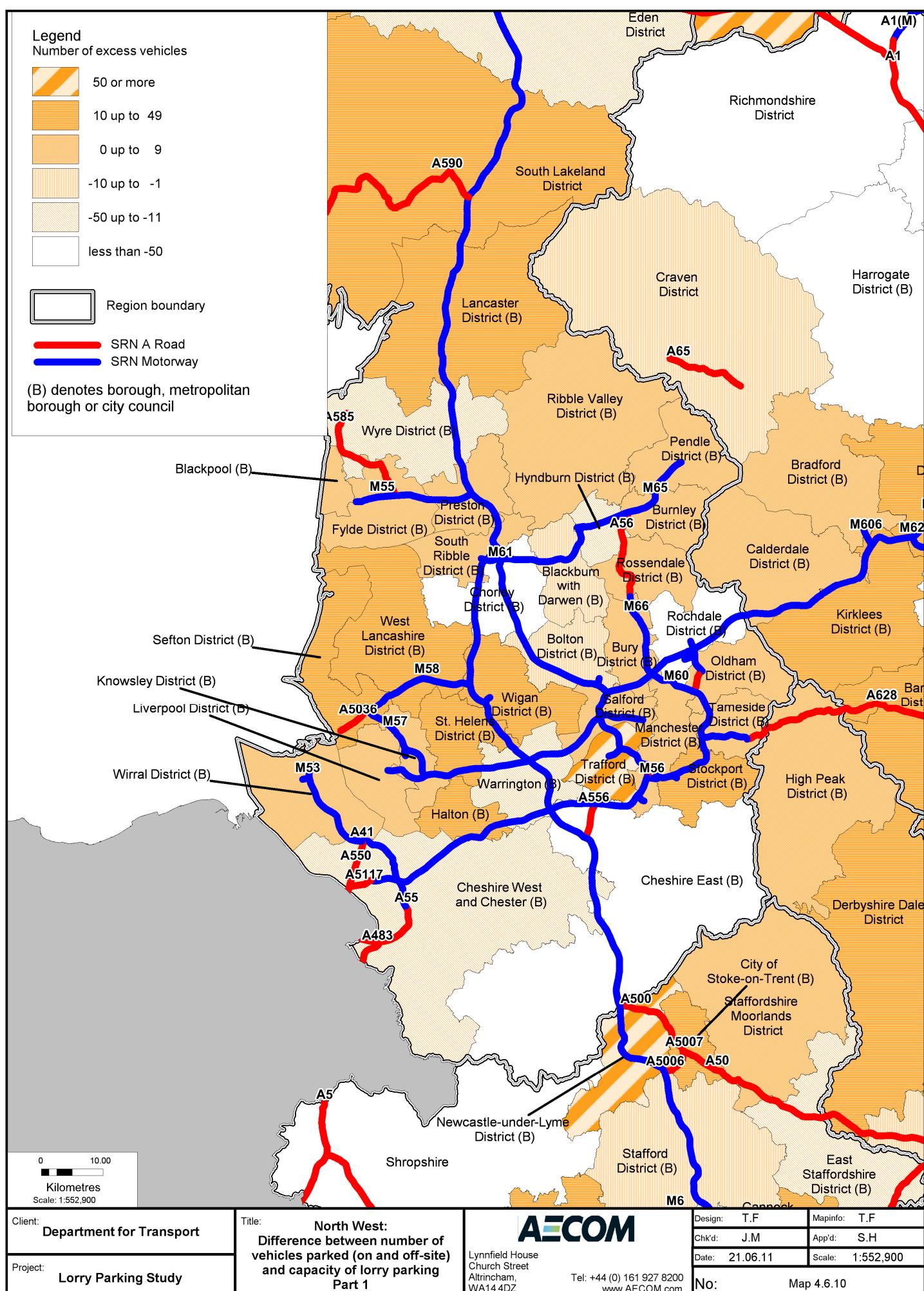
Map 4.6.10, Figure 4.12 and 4.13 above highlight that parts of the North West had more vehicles parked than spaces, including Trafford and Lancaster. However, many local authorities had spare spaces, including Cheshire East, Carlisle and Rochdale. This indicates that although generally the region had enough capacity there were shortages in key areas.

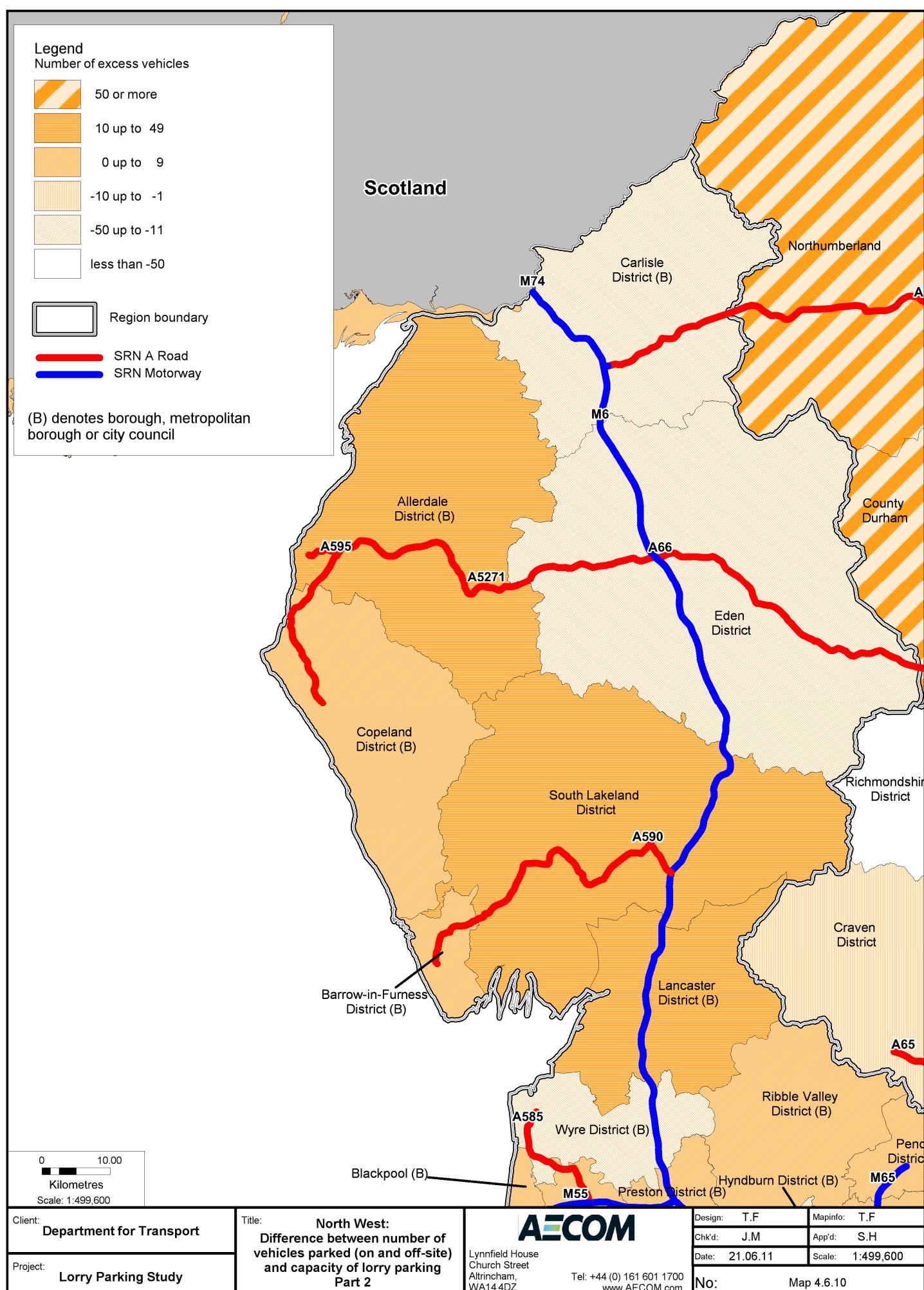
These charts combined with map 4.6.10 highlight clear problems; in Trafford and Lancaster there was not enough supply of spaces to accommodate the demand. The high demand in Trafford was one of the main issues in the region, with more than 100 vehicles parking in industrial estates and only a small lorry park, Diggle's Diner. It is uncertain whether vehicles would use on-site parking if it was made available in this area. If capacity was increased then thought would have to be given on how to get vehicles to use it. This may include decisions on appropriate pricing, standard of facilities, marketing information and enforcement.

Referring back to the hotspots identified earlier in section 4.6.3 (map 4.6.9) the hotspot in Carlisle was near to three lorry parking sites all with considerable capacity available. This suggests that lorry drivers were avoiding these sites to save money.

The Hotspot near Lancaster had some lorry parking sites nearby, however the location of the industrial estates used indicates that these vehicles may have been stopping before completing journeys nearby in the morning.

There was no lorry parking sites available near the surveyed hotspot in Kirkby. Furthermore, this hotspot was close to the hotspot between Skelmersdale and Warrington. The two lorry parking sites nearby, Burtonwood and Lymm Services were both close to





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capacity. The busy lorry parks combined with the high level of off-site parking indicated a general shortage around the west of Manchester.

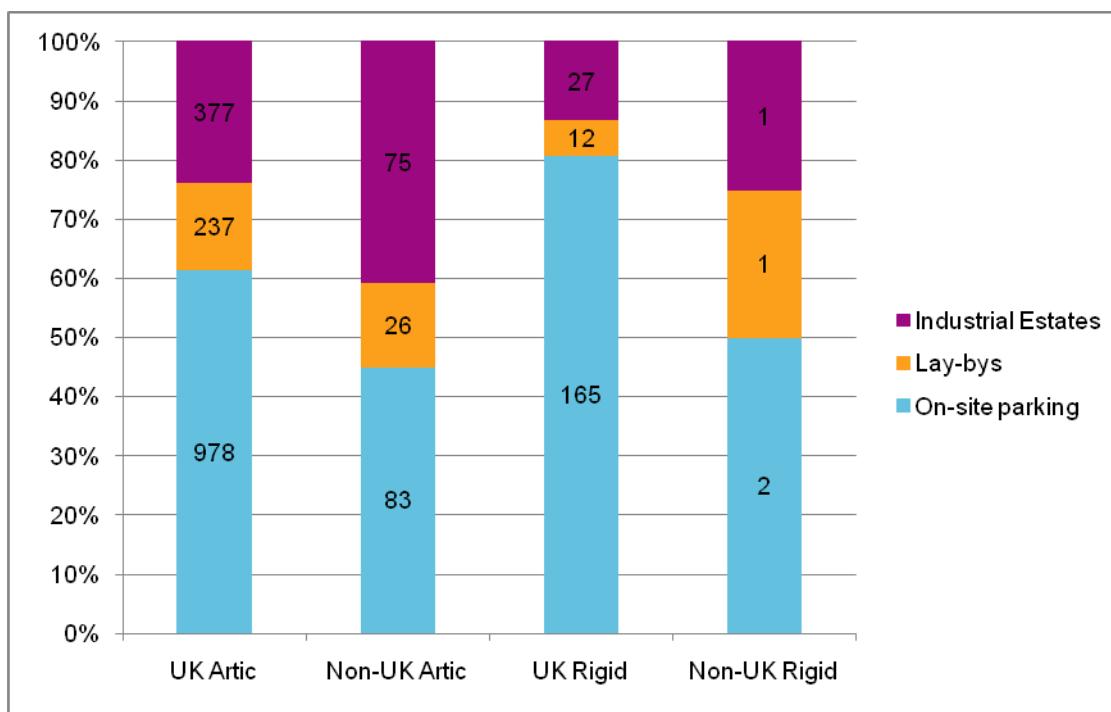
As discussed earlier (see section 4.6.4) the Manchester hotspot spreaded out beyond Rochdale and Oldham, where there were two lorry parking facilities, one of which was an independent lorry park, Heywood Distribution Park and the other an MSA, Birch Services. Between these two sites there was enough spare capacity to accommodate the vehicles parking to the east of Manchester which indicates stronger enforcement and additional encouragement could reduce the level of off-site parking.

The final hotspot in the region, located south of Knutsford was near to three lorry parking sites all of which had some available spaces. However, the independent lorry park at Crewe was located more than 5km from the SRN and the other two facilities were MSAs. It could be the case that lorry drivers were parking on routes parallel to the M6 as these roads were quieter and they can avoid having to pay yet still be close to the SRN

Figure 4.14 below shows the split of where different vehicle types were parking (on-site, in lay-bys or industrial estates). This shows that UK articulated vehicles accounted for the majority of on-site parking, however around 40% of UK registered articulated vehicles were still parking in lay-bys or industrial estates.

In the North West UK registered vehicles were more likely to park on-site than non-UK registered vehicles. Encouraging non-UK vehicles to park on-site rather than in lay-bys and industrial estates may require different sets of strategies.

Figure 4.14: Split of different parking areas across UK and non-UK vehicle types in the North West



4.6.6 Crime Analysis

There were 278 recorded road freight crimes in the North West in 2010. The estimated cost to industry for this was approximately £6.7 million, see Table 4.15 section 4.6.1. The level of crime was higher in the south of the region than the north. Cheshire East, Cheshire West and Chester, Liverpool, West Lancashire, Chorley and Wigan all suffered between 10 and 25 recorded crimes each in 2010. The higher level of crime was likely caused by the proximity to urban areas and extensive road networks that allow good escape routes, as seen throughout the rest of the country.

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4.6.7 Summary

Much of the region had satisfactory lorry parking provision, however there were still significant levels of off-site parking. The main off-site parking hotspot was located in Trafford Park, Manchester, and was caused by vehicles parking in industrial estates where there was only a small amount of on-site parking provision. Other notable off-site parking areas were around Carlisle, however, there was on-site parking available. The level of crime was comparable to the national average and was generally concentrated in the south of the region where there is a higher flow of freight traffic and more urban areas.

