

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

Capabilities on project:
Transportation

4.8 South West

List of Key Facts:

1. There was a relatively low utilisation of 45% surveyed, compared to the national average of 61%
2. Parking provision was generally focused along the M5 and the A30
3. The busiest local authorities in the region were Swindon, Stroud, North Somerset, South Somerset, Teignbridge and Torbay districts. All of these were between 50 and 75% utilised.
4. There was significant off site parking in east of the region
5. Approximately 50% of all vehicles were parking off site in the region
6. The parking hotspots, formed by high number of vehicles parking in lay bays and industrial estates was greatest around the M4, M5, M49 junction and along the A30 between Honiton and Exeter, and at points on the A303
7. Parking hotspots were located in Avonmouth near Bristol, Wincanton on the A303, Bridgwater just off the M5 and the A30 from Exeter to Chard
8. There were 97 recorded freight crimes in 2010, costing the industry £2.4 million

4.8.1 Overview

The base information contained in the following Tables 4.13, 4.14 and 4.15 will be analysed in detail throughout the South 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 4.19 Overview of facility types and capacity in the South West region

Name	Type	Overnight Cost (£s)	Capacity
A35 Cafe	Independent	£5 or less	10
A36 Warminster (Hillside Cafe)	Independent	£10 or less but more than £5	4
Albion Inn And Truck Stop	Independent	£15 or less but more than £10	27
Bridgewater Services	MSA	£15 or less but more than £10	25
Cafe Royal	Local Authority	£5 or less	8
Cullompton Services	MSA	£15 or less but more than £10	15
Dens Delights	Independent	Free	10
Exeter Services	MSA	£20 or less but more than £15	50
Gilbrator Club And Morgans Cafe	Independent	Free	10
Gordano Services	MSA	£20 or less but more than £15	50
Greasy Joes	Independent	Free	35
Haldon Grill	Independent	Free	10
Leigh Delamere Services Eastbound	MSA	£20 or less but more than £15	80

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Leigh Delamere Services Westbound	MSA	£20 or less but more than £15	80
Locking Road	Local Authority	£10 or less but more than £5	50
Lymington Road	Local Authority	£10 or less but more than £5	20
Michaelwood Services Northbound	MSA	£20 or less but more than £15	50
Michaelwood Services Southbound	MSA	£25 or less but more than £20	55
Nunney Catch Cafe	Independent	£5 or less	15
Pitstop Truckstop	Independent	£20 or less but more than £15	70
Podimore	TRSA	Free	15
Saltash Services	TRSA	£10 or less but more than £5	6
Sedgemoor Services Northbound	MSA	£20 or less but more than £15	20
Sedgemoor Services Southbound	MSA	£20 or less but more than £15	17
Severn View Services	MSA	£15 or less but more than £10	40
Smokey Joes Cafe	Independent	£15 or less but more than £10	25
Sourton Cross	TRSA	Free	10
Subway	TRSA	£15 or less but more than £10	20
Sumerfield	TRSA	Free	5
Swindon Truckstop	Independent	£15 or less but more than £10	80
Taunton Deane Services Northbound	MSA	£20 or less but more than £15	50
Taunton Deane Services Southbound	MSA	£20 or less but more than £15	30
The Avon Lodge	Independent	£15 or less but more than £10	
Truro Football Club	Independent	£15 or less but more than £10	75
Westward Cafe	Independent	£10 or less but more than £5	34
Whitehouse Services	TRSA	Free	4
Total			1,105

Table 4.20: Overview of on-site utilisation, off-site parking and excess demand in the South West region

Utilisation						
Vehicle Type	UK Artic	non-UK Artic	UK Rigid	non-UK Rigid	Total	% Utilisation
On-site parking	333	73	97	4	512	46%
Off-site Parking	Lay-bys	235	33	40	2	310
	Industrial Estates	127	30	21	0	178
Excess Demand				-105		

Capabilities on project:
Transportation

Table 4.21: Overview of 2010 reported freight crime in the South West region

Reported Freight Crime ²⁴					
Number of recorded crimes in 2010	97				
Severity Index ²⁵	1	2	3	4	5
Number of crimes recorded	2	85	10	0	0
Value of freight crimes recorded	£256,191				
Estimated total value of freight crimes recorded	£2,425,000				

*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.

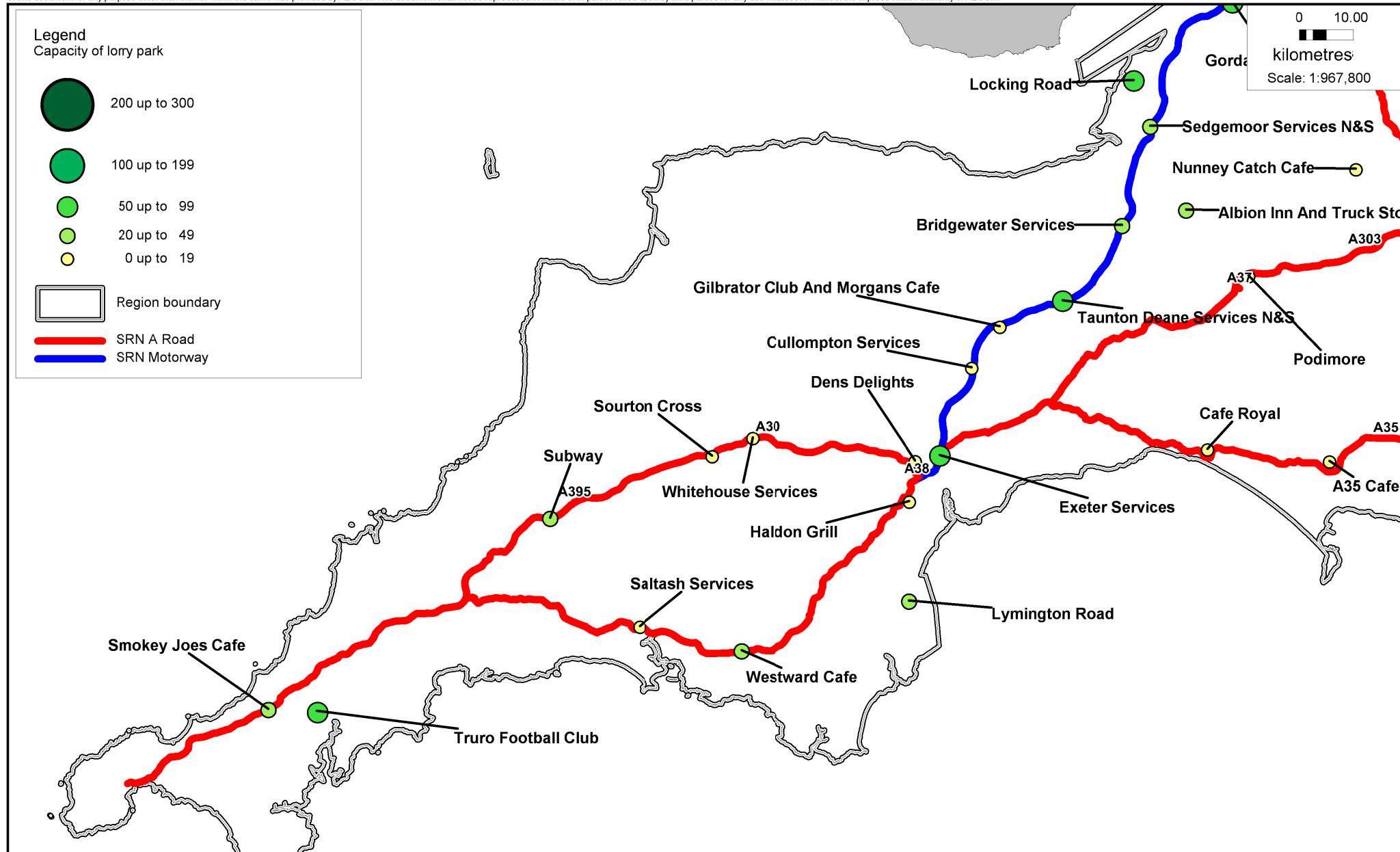
4.8.2 Facilities and Capacity

The South West had 1,105 lorry parking spaces spread across 36 on-site lorry parking locations throughout the region. 24 of the sites had fewer than 50 spaces, and none had more than 100 spaces. This indicates that smaller and medium sites were much more prevalent in the region than large sites. Approximately 65% of the overnight parking was £15 or less. The independent facilities in the South West were relatively cheap compared to the MSA.

Map 4.8.1 shows that the parking provision was generally focused along the M5 and the A30. As shown in map 4.8.2 Stroud, Cornwall, North Somerset and Wiltshire provided the largest number of spaces. Cotswold, Swindon, Stroud, South Gloucestershire, Sedgemoor, Taunton Deane, Mendip, South Somerset, West Dorset, Mid Devon, Exeter, Teignbridge, West Devon, Torbay and South Hams districts also had some capacity.

²⁴ Truckpol 2010

²⁵ See Appendix 5 for explanation of crime severity index



Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Capacity of lorry parking sites
Part 1

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Design: T.F

Mapinfo: T.F

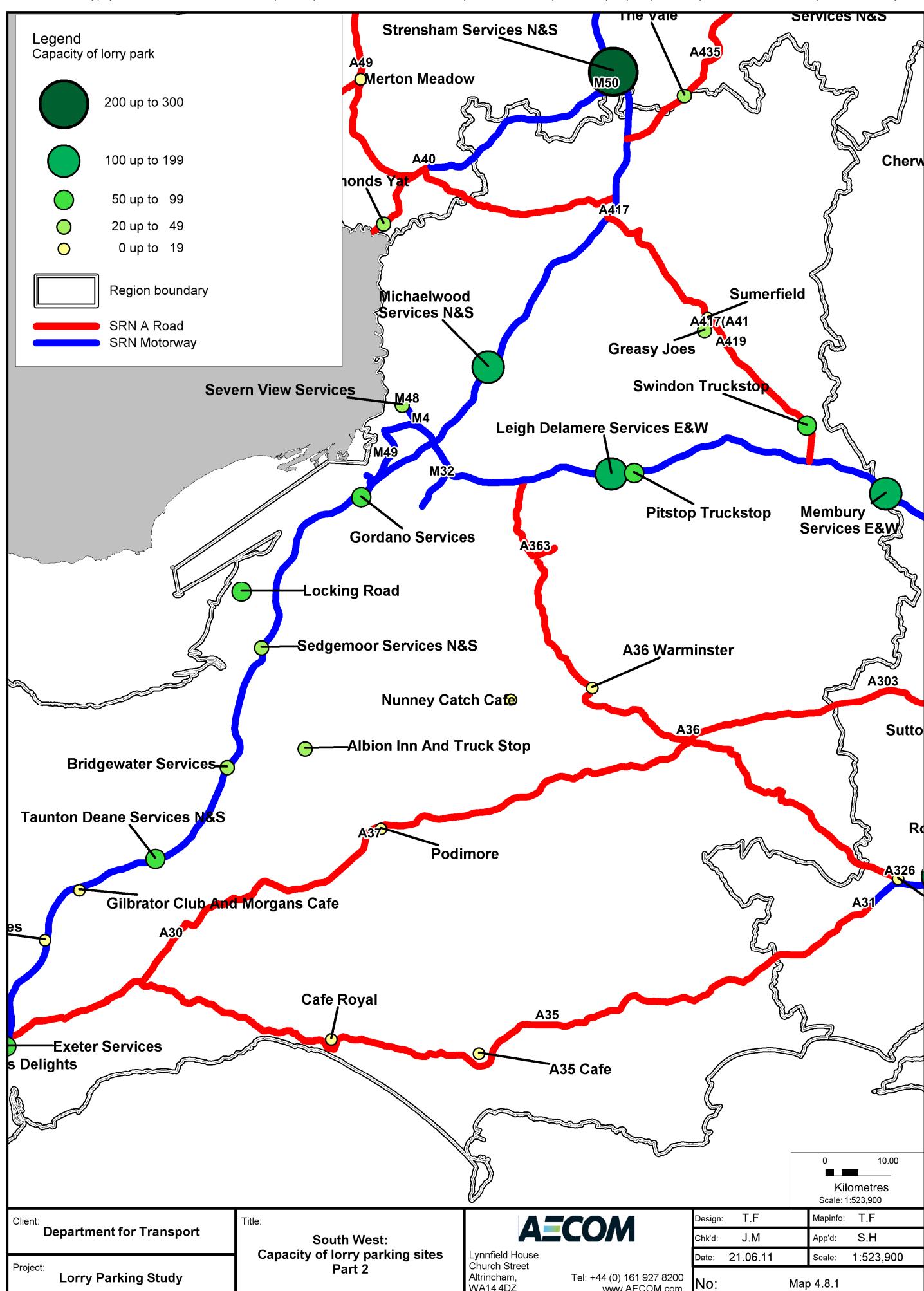
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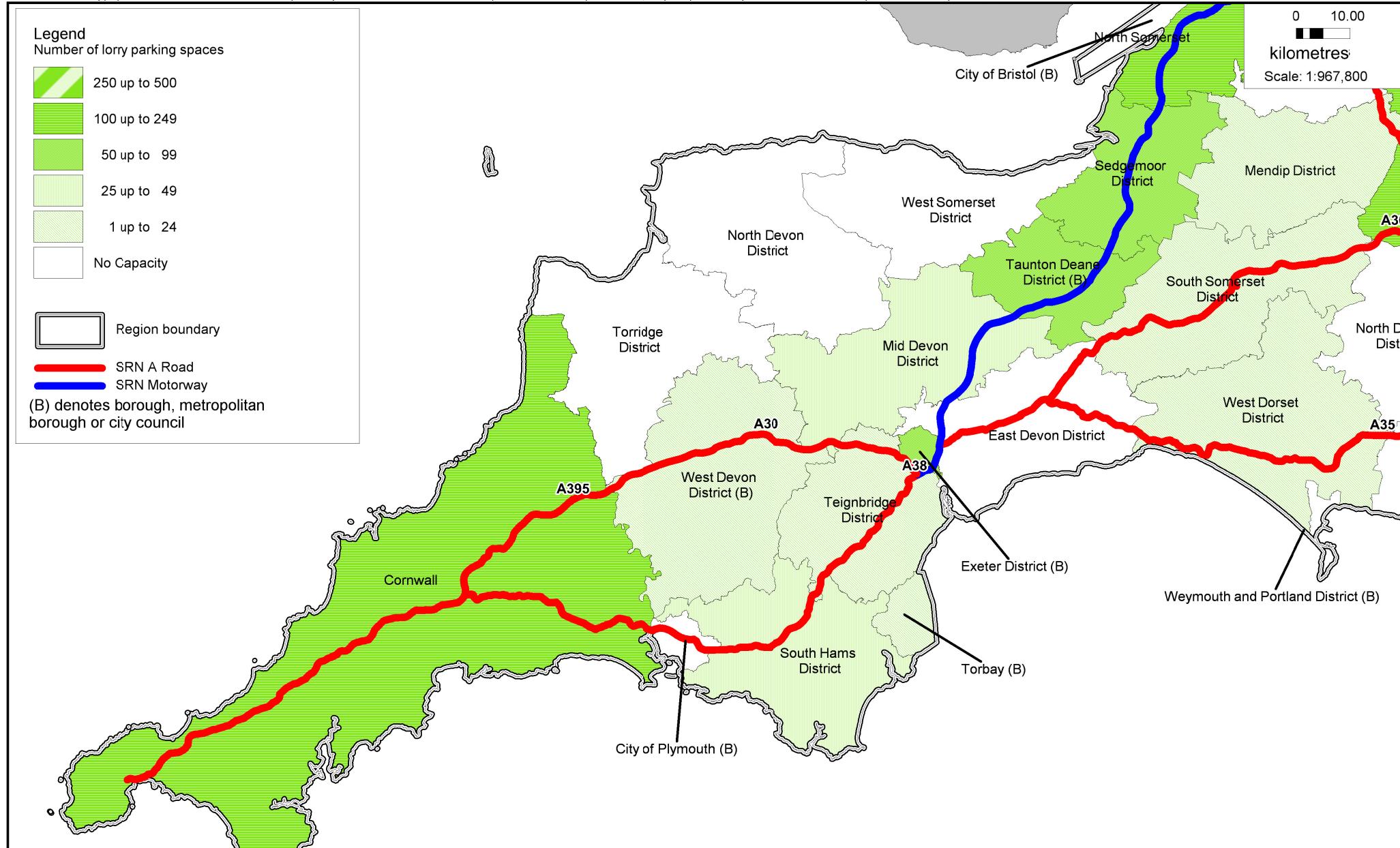
App'd: S.H

Date: 21.06.11

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No: Map 4.8.1





Client: Department for Transport

Title: South West:
Onsite lorry parking capacity
Part 1

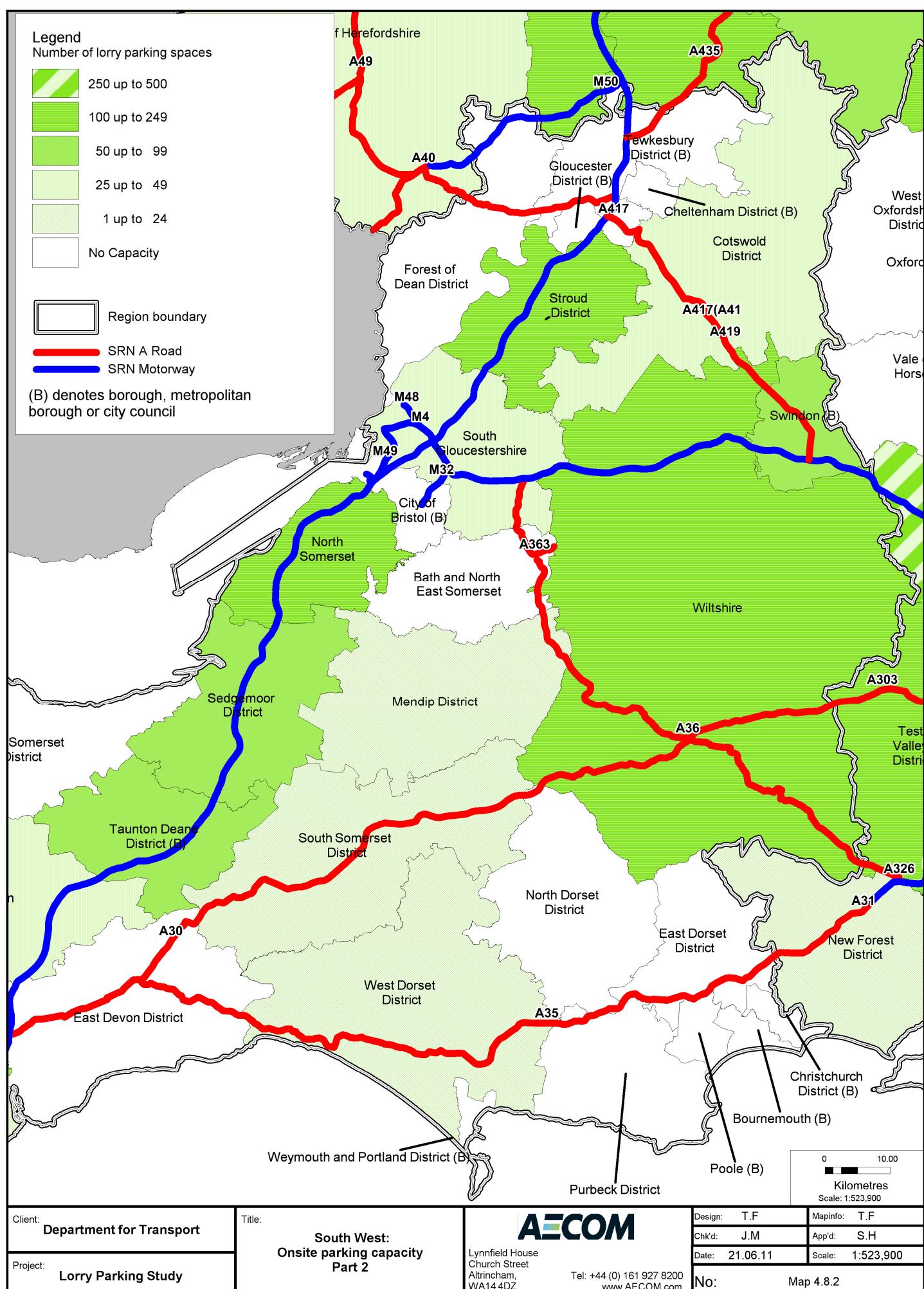
Project: Lorry Parking Study

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Date: 21.06.11	Scale: 1: 967,800
No: Map 4.8.2	

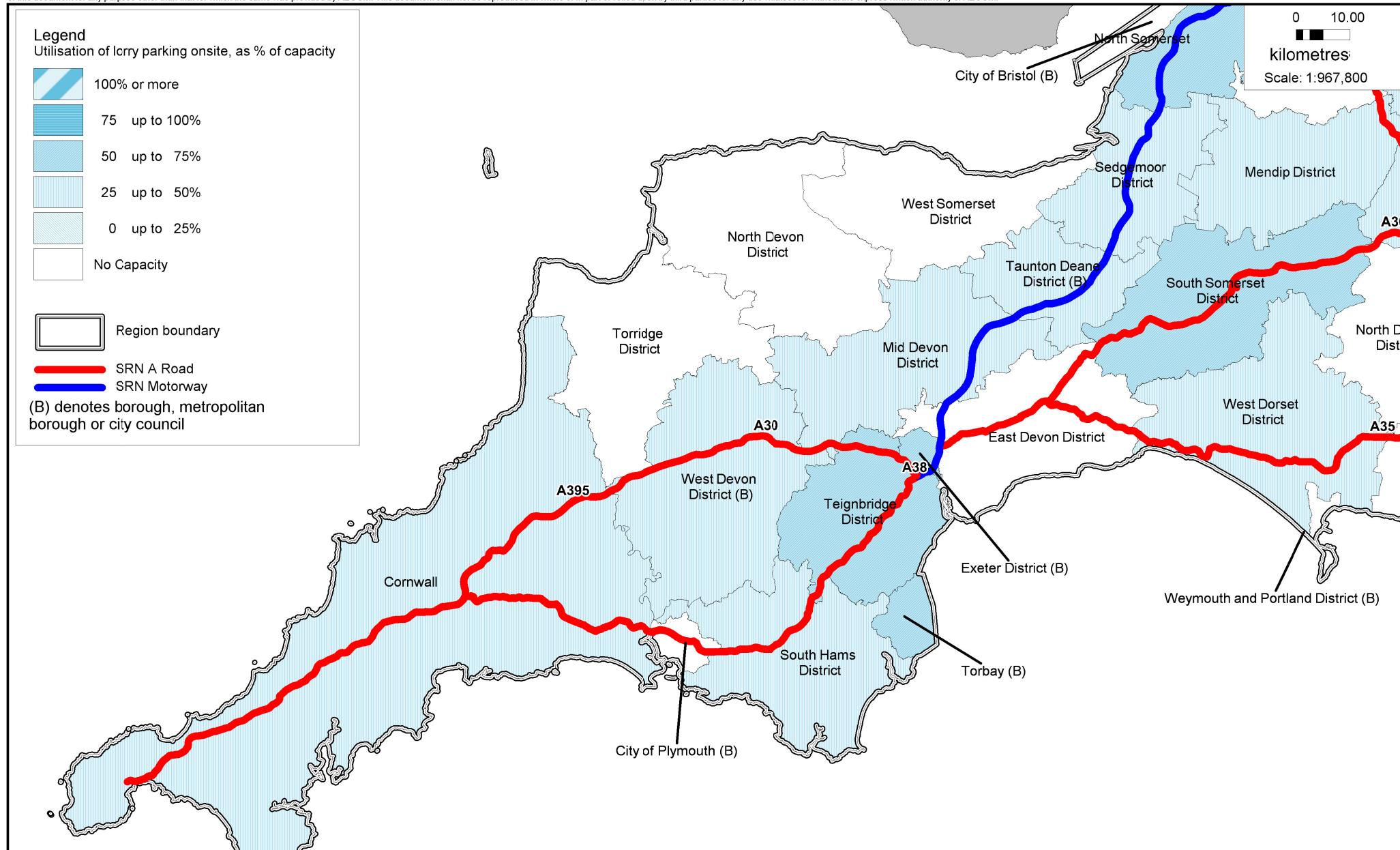


Capabilities on project:
Transportation

4.8.3 On-site Parking

The level of on-site utilisation in the South West was 46% as shown in Table 4.20 (see section 4.8.1), this highlights that overall the lorry parking sites in the South West were underutilised. This utilisation was also lower than the national average of 61%. The busiest local authorities in the region were Swindon, Stroud, North Somerset, South Somerset, Teignbridge and Torbay districts (see map 4.8.3). All of these were between 50 and 75% utilised. The rest of the local authorities in the region were between 25 and 50% utilised.

The hotspot and on site utilisation map (4.9.9) shows that only five of the 36 lorry park sites in the region were more than 75% utilised. This shows that although there were specific areas with high usage, the majority of the region had a surplus of provision. This indicates that in some cases where there was off-site parking there may have been scope to encourage drivers to use lorry parking sites nearby that had spaces to accommodate them.



Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Onsite lorry parking utilisation
Part 1

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Design: T.F

Mapinfo: T.F

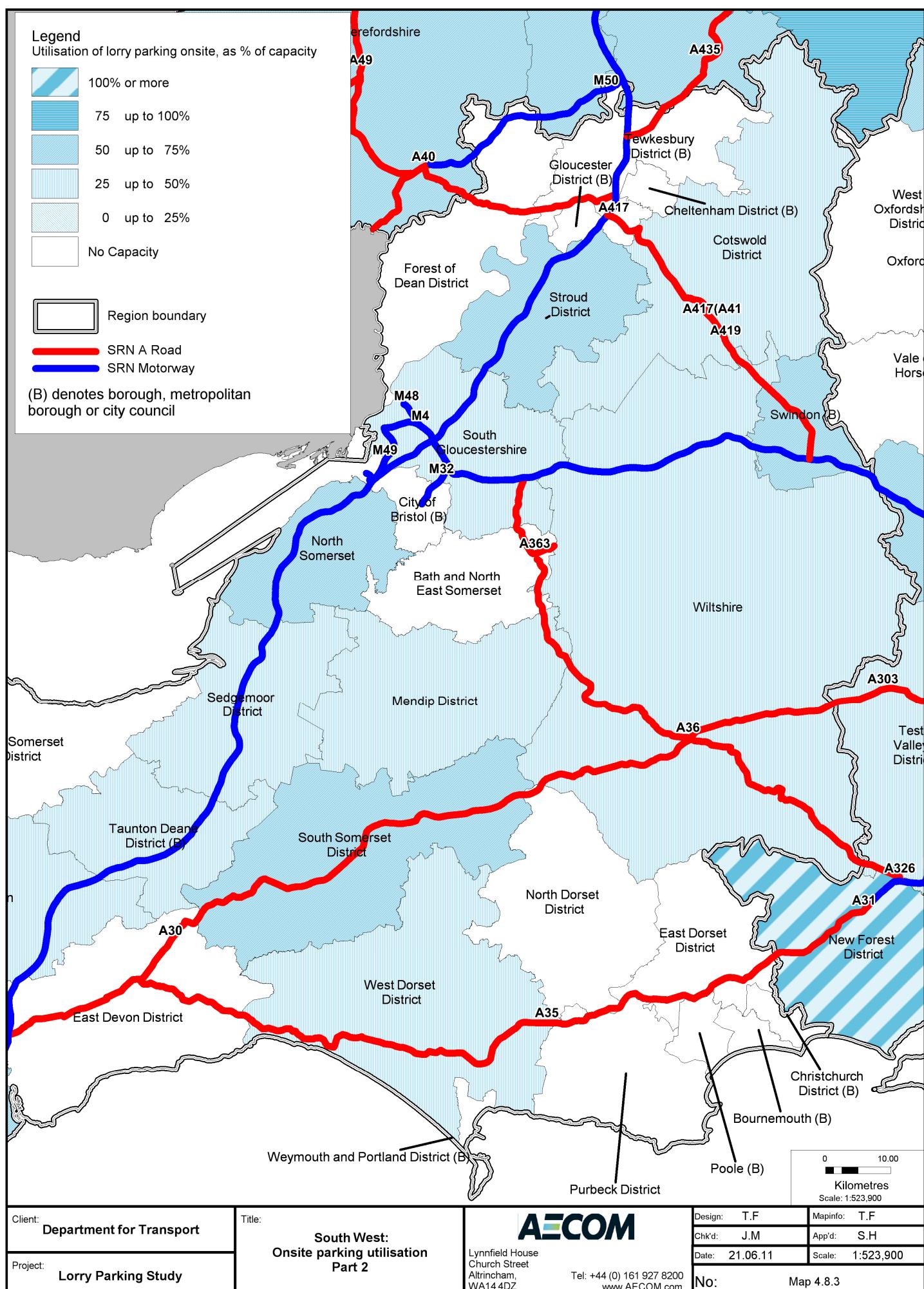
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Date: 21.06.11

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No: Map 4.8.3



Capabilities on project:
Transportation

4.8.4 Off-site Parking

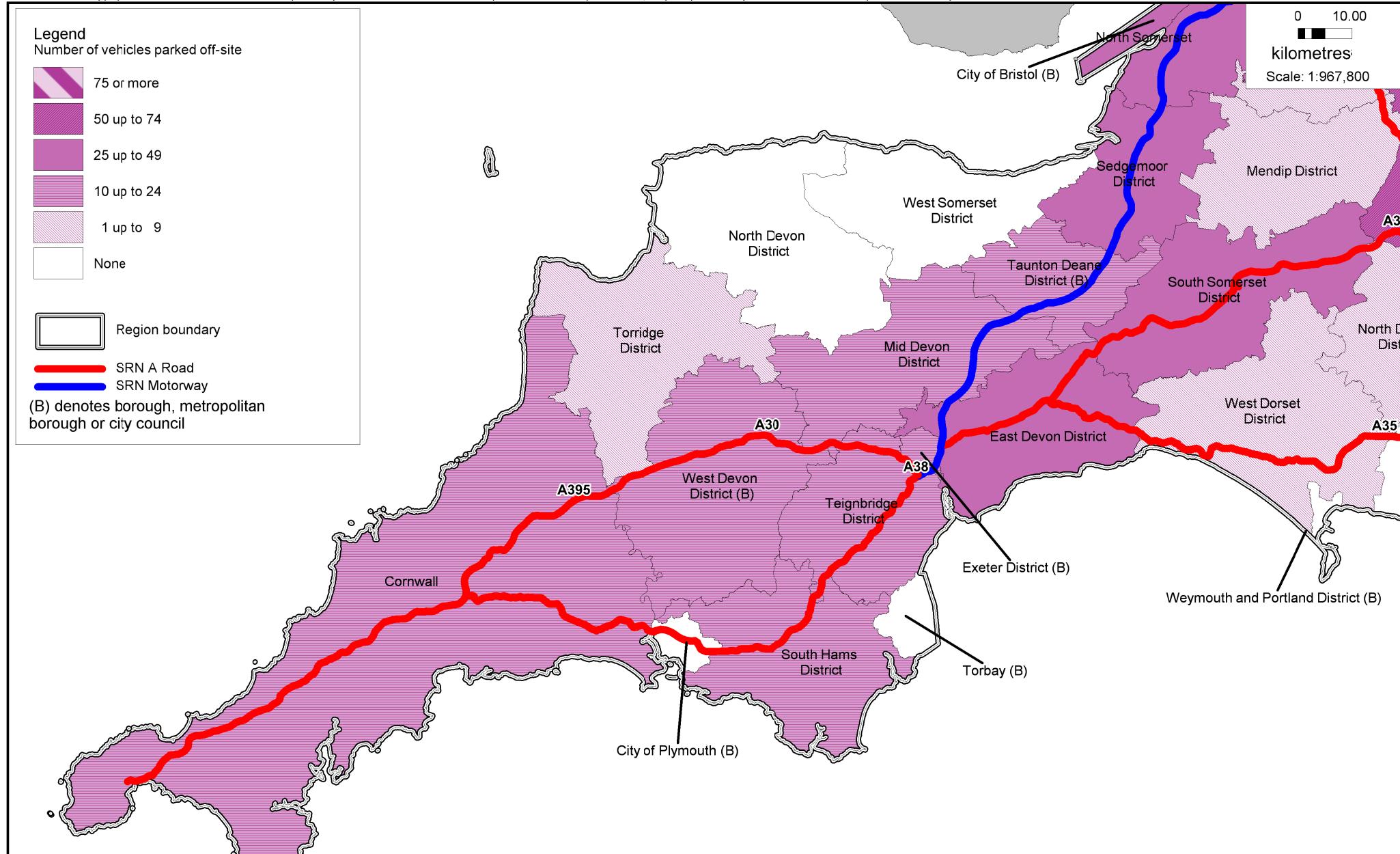
The off-site parking maps (see maps 4.8.4, 4.8.5, 4.8.6, 4.8.7, 4.8.8 and 4.8.9 - all immediately after this page) shows that the number of vehicles parking in lay-bys and industrial estates was greatest around the M4, M5, A303 triangle. Table 4.20 (see section 4.8.1) shows that approximately half of all vehicles parking in the South West were parking off-site despite lorry parking sites being only 46% 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 4.8.4 shows the highest level of off-site parking was in Wiltshire with between 50 and 75 vehicles parking off-site. There was also between 25 and 50 vehicles parking off-site in each of Swindon, South Gloucestershire, North Somerset, Sedgemoor, South Somerset and East Devon districts. There was more minor off-site parking across the rest of the region.

Given the size of some authorities within the region it is important to understand exactly where the hotspots of off-site parking were. The South West hotspot map (see map 4.8.9) shows four locations where there were more than 25 vehicles parked off-site within in a 5km radius of each other. These were around Avonmouth near Bristol, Wincanton on the A303, Bridgwater just off the M5 and the A30 from Exeter to Chard.

The detailed off-site parking maps (see maps 4.8.5, 4.8.6, 4.8.7 and 4.8.8) shows the exact locations of the lay-bys and industrial estates that were being used for parking, which can be related back to the hotspot analysis. The hotspot on the A30 between Exeter and Chard was caused by vehicles parking in lay-bys on the A30 and in two industrial estates; Sowton and Honiton industrial estates. The Bridgwater hotspot was mainly caused by vehicles parking in industrial estates just off the motorway.

The hotspot at Avonmouth, which has more than 50 vehicles parked within it, was caused mainly by vehicles parking in Avonmouth industrial estates. The final hotspot near Wincanton was caused by vehicles parking in large lay-bys on the A303, this may have been related to the dairy industry located in Wincanton.



Client: Department for Transport

Project: Lorry Parking Study

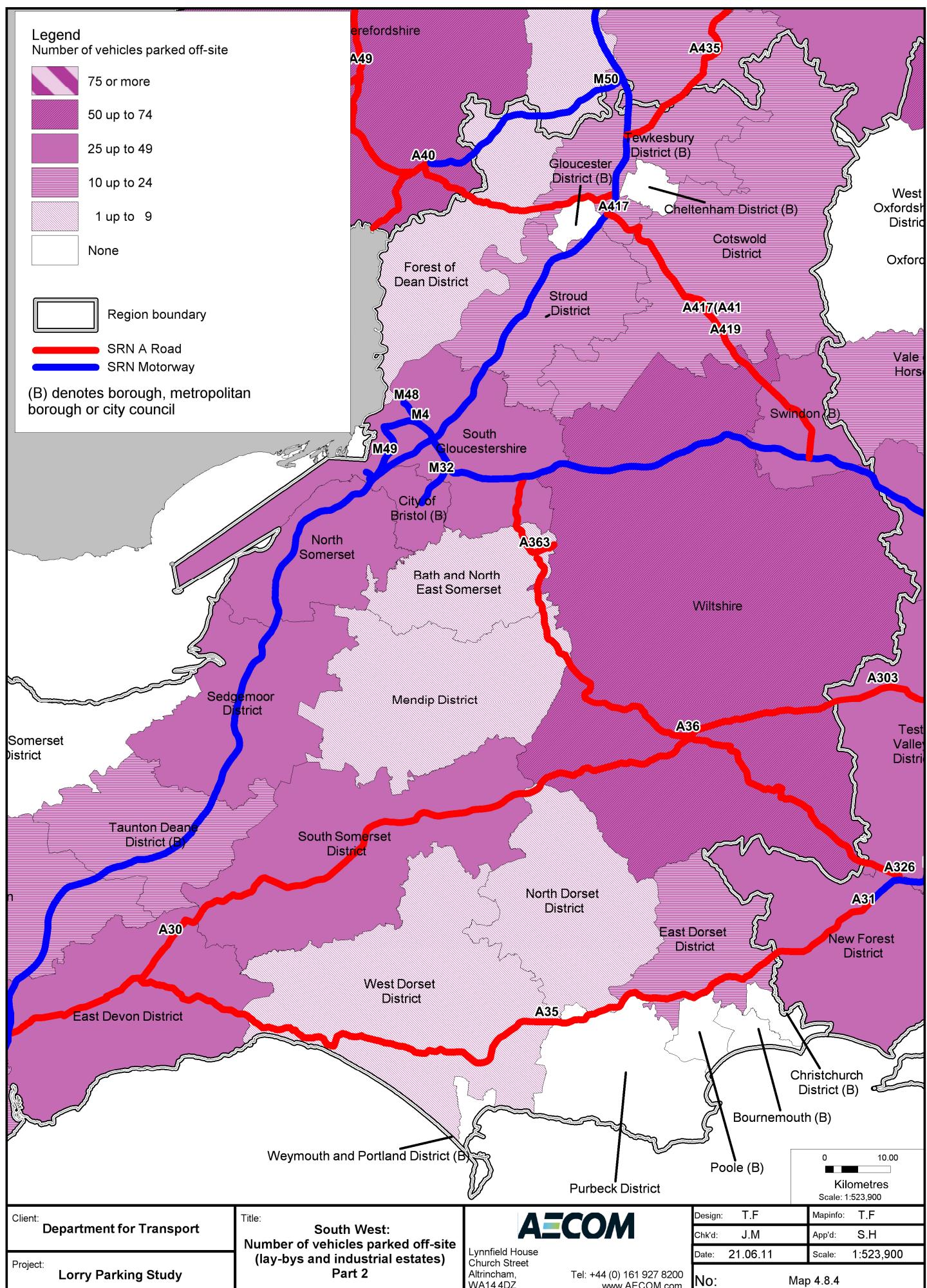
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Number of vehicles parked off-site
(lay-bys and industrial estates)
Part 1

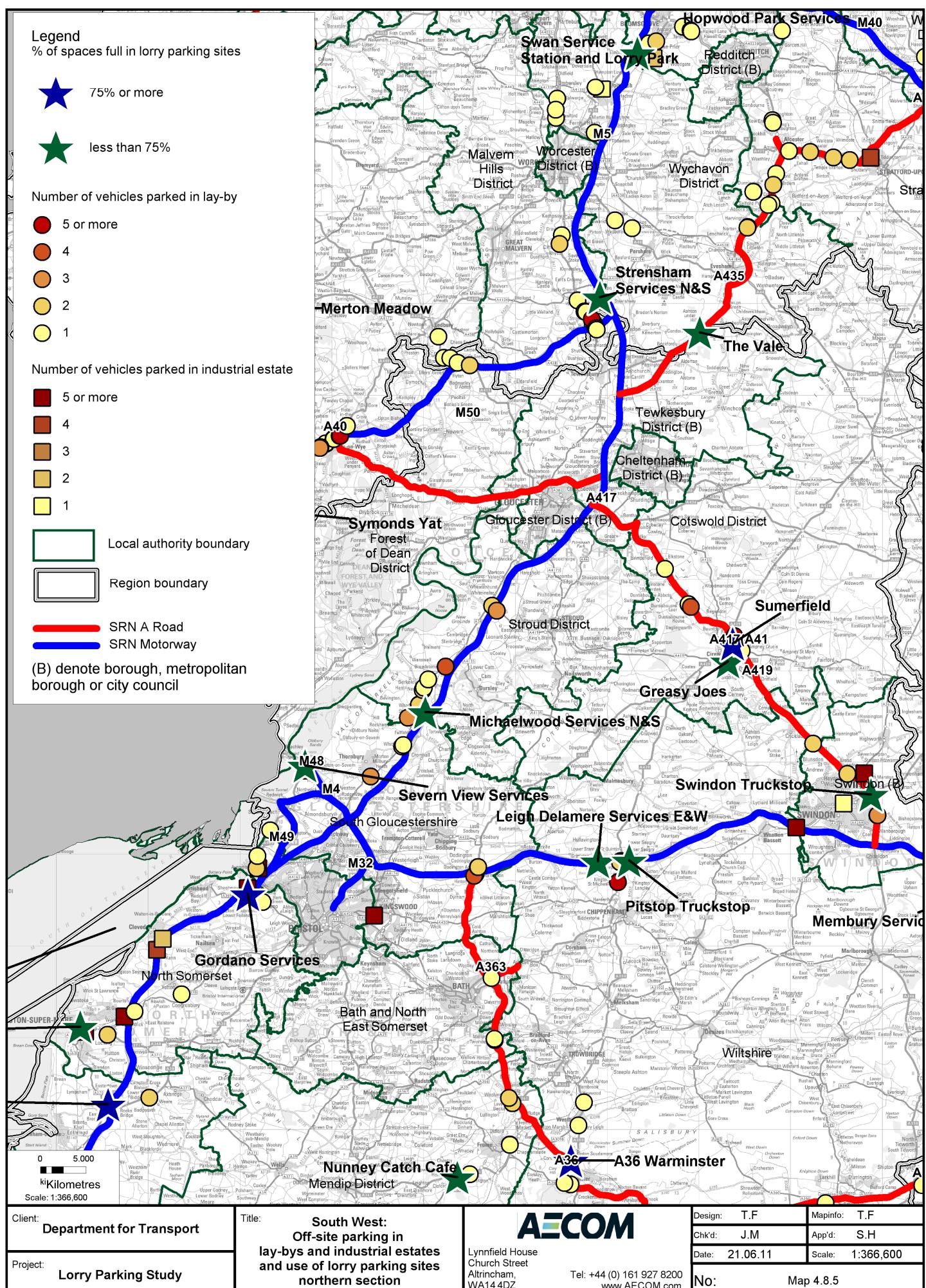
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Design: T.F	Mapinfo: T.F
Chk'd: J.M	App'd: S.H
Date: 21.06.11	Scale: 1: 967,800
No: Map 4.8.4	





Legend % of spaces full in lorry parking sites

75% or more

less than 75%

Number of vehicles parked in lay-by

- 5 or more
- 4
- 3
- 2
- 1

Number of vehicles parked in industrial estate

- 5 or more
- 4
- 3
- 2
- 1

Local authority boundary

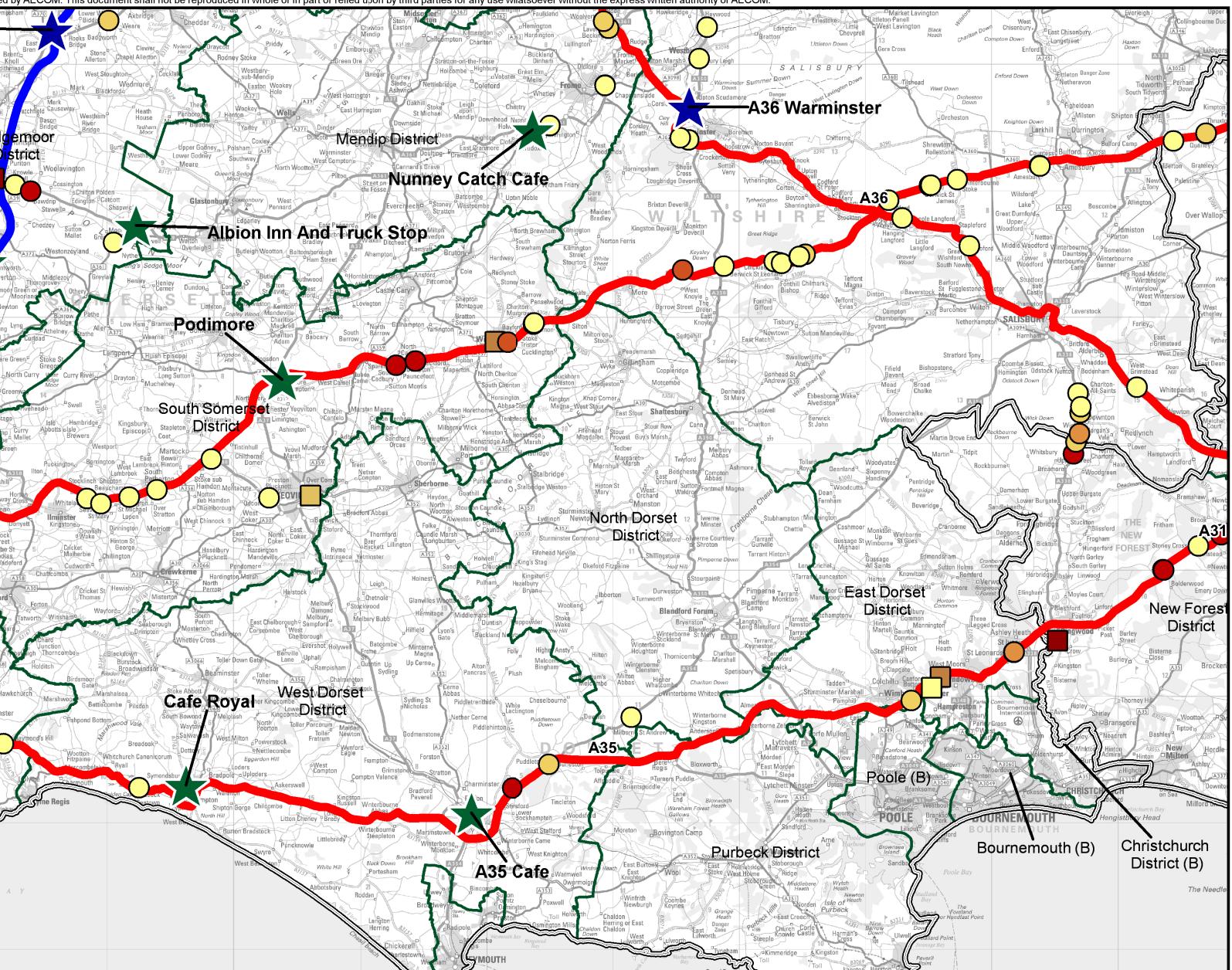
Region boundary

SRN A Road

SRN Motorway

(B) denotes borough, metropolitan borough or city council

0 5.000
kilometres
Scale: 1:458,200



Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Off-site parking in
lay-bys and industrial estates
and use of lorry parking sites
southeastern section

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Design: T.F

Mapinfo: T.F

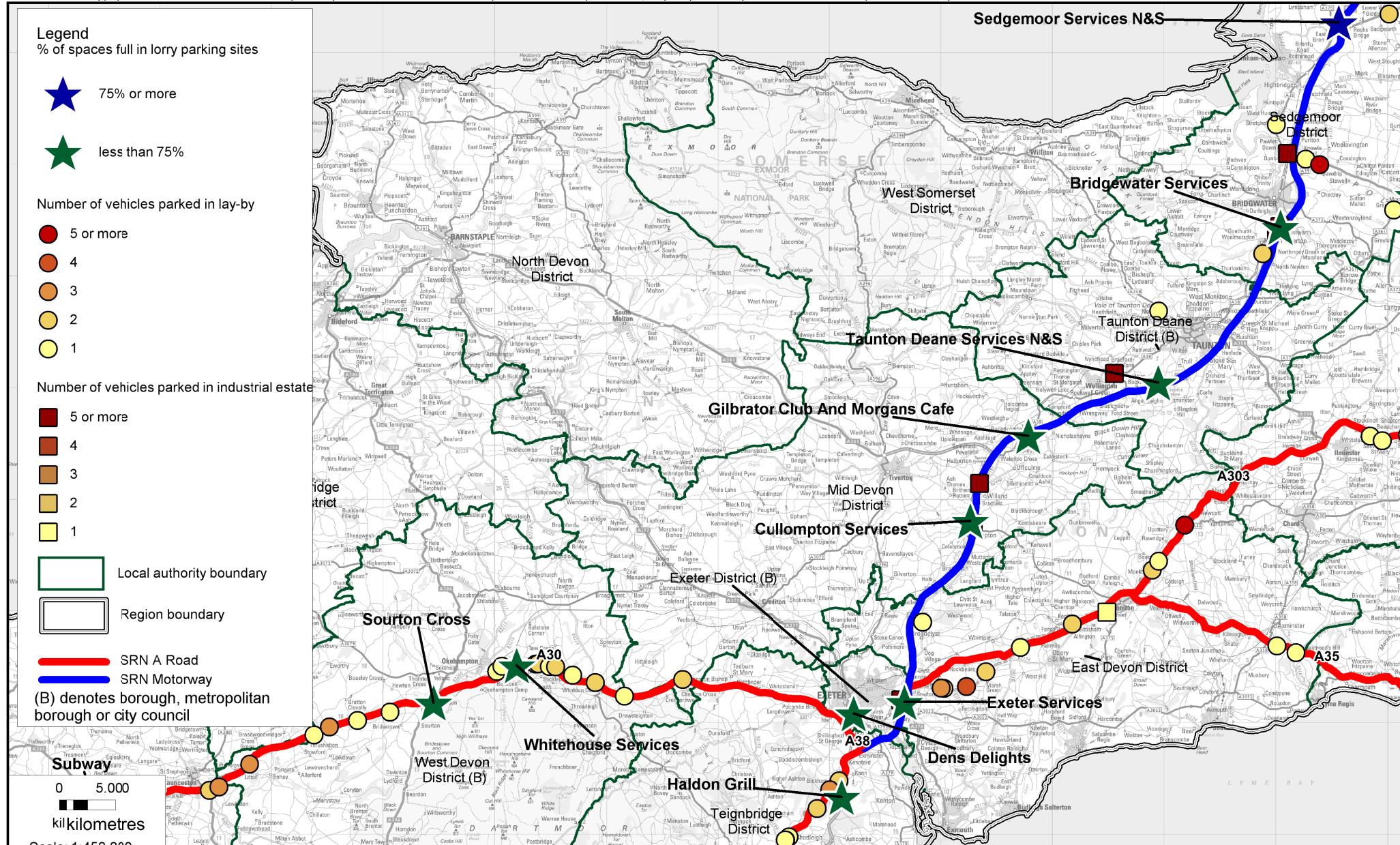
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App'd: S.H

Date: 21.06.11

Scale: 1: 458,200

No: Map 4.8.6



Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Off-site parking in
lay-bys and industrial estates
and use of lorry parking sites
central section

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Mapinfo: T.F

Chk'd: J.M

App'd: S.H

Date: 21.06.11

Scale: 1: 458,200

No: Map 4.8.7

Legend % of spaces full in lorry parking sites

75% or more

less than 75%

Number of vehicles parked in lay-by

- 5 or more
- 4
- 3
- 2
- 1

Number of vehicles parked in industrial estate

- 5 or more
- 4
- 3
- 2
- 1

Local authority boundary

Region boundary

SRN A Road

SRN Motorway

(B) denotes borough, metropolitan
borough or city council

0 5.000

kilometres

Scale: 1:457,900

Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Off-site parking in
lay-bys and industrial estates
and use of lorry parking sites
southwestern section

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Design: T.F

Mapinfo: T.F

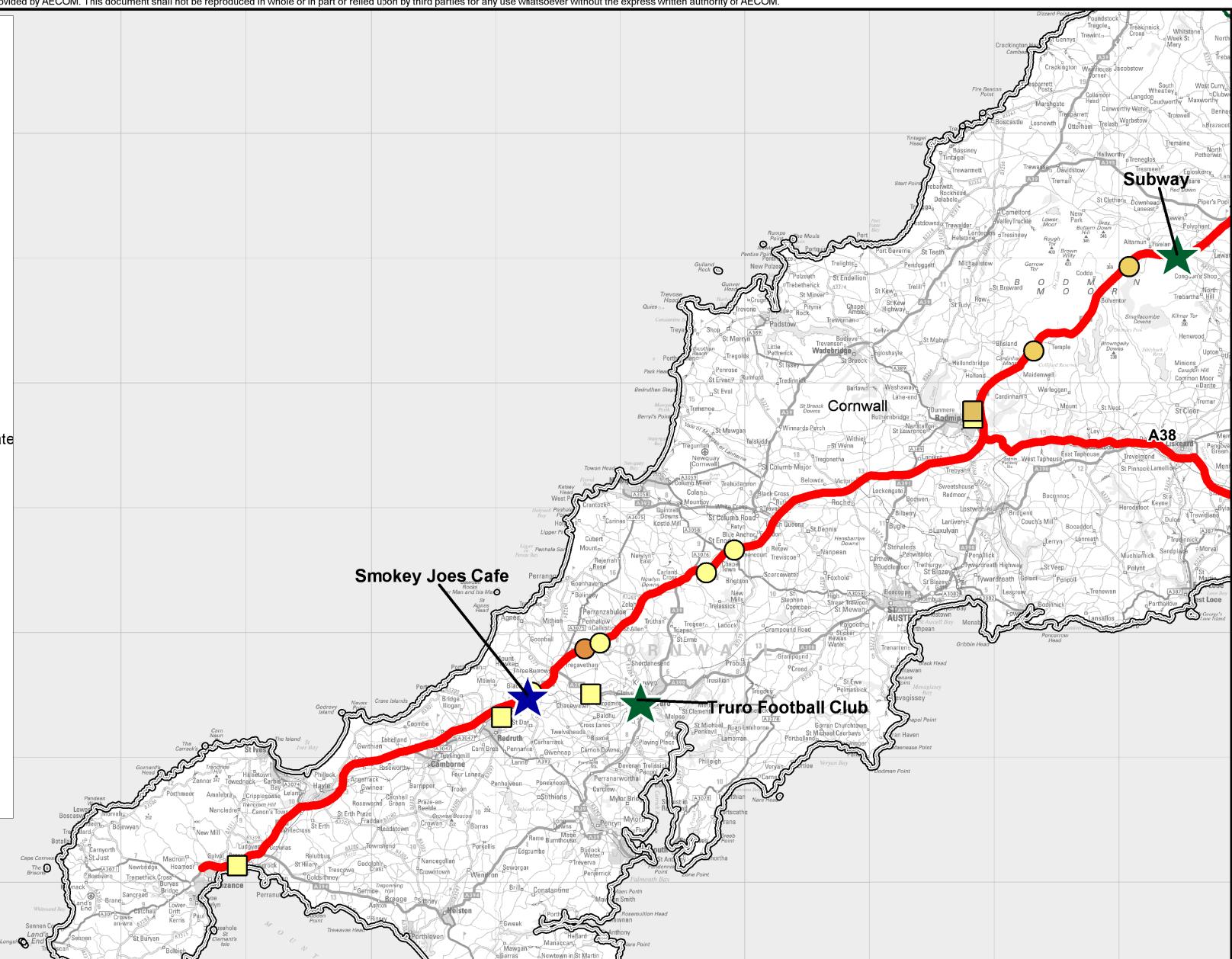
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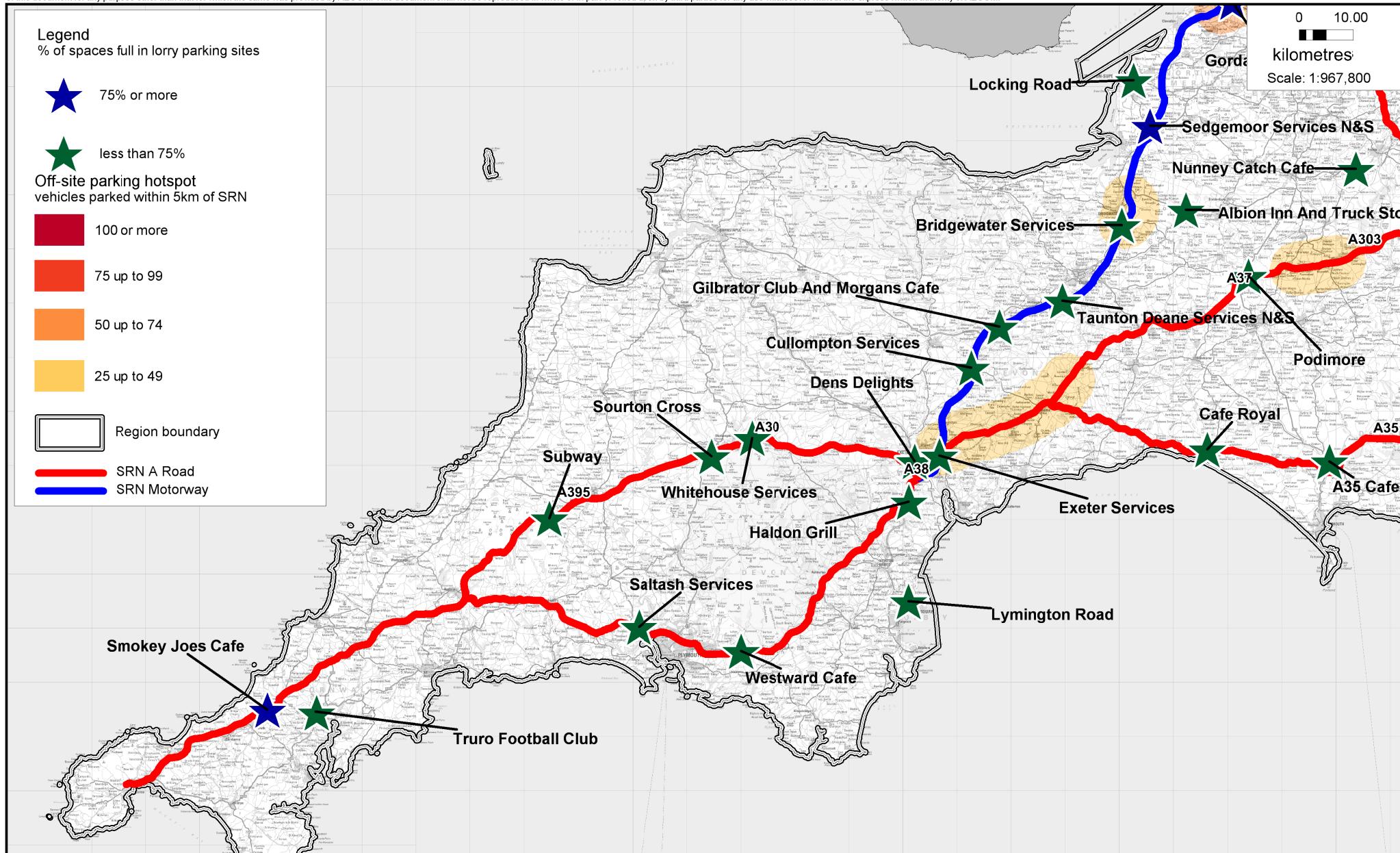
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Date: 21.06.11

Scale: 1: 457,900

No: Map 4.8.8





Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Off-site parking hotspots
and use of lorry parking sites
Part 1

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Design: T.F

Mapinfo: T.F

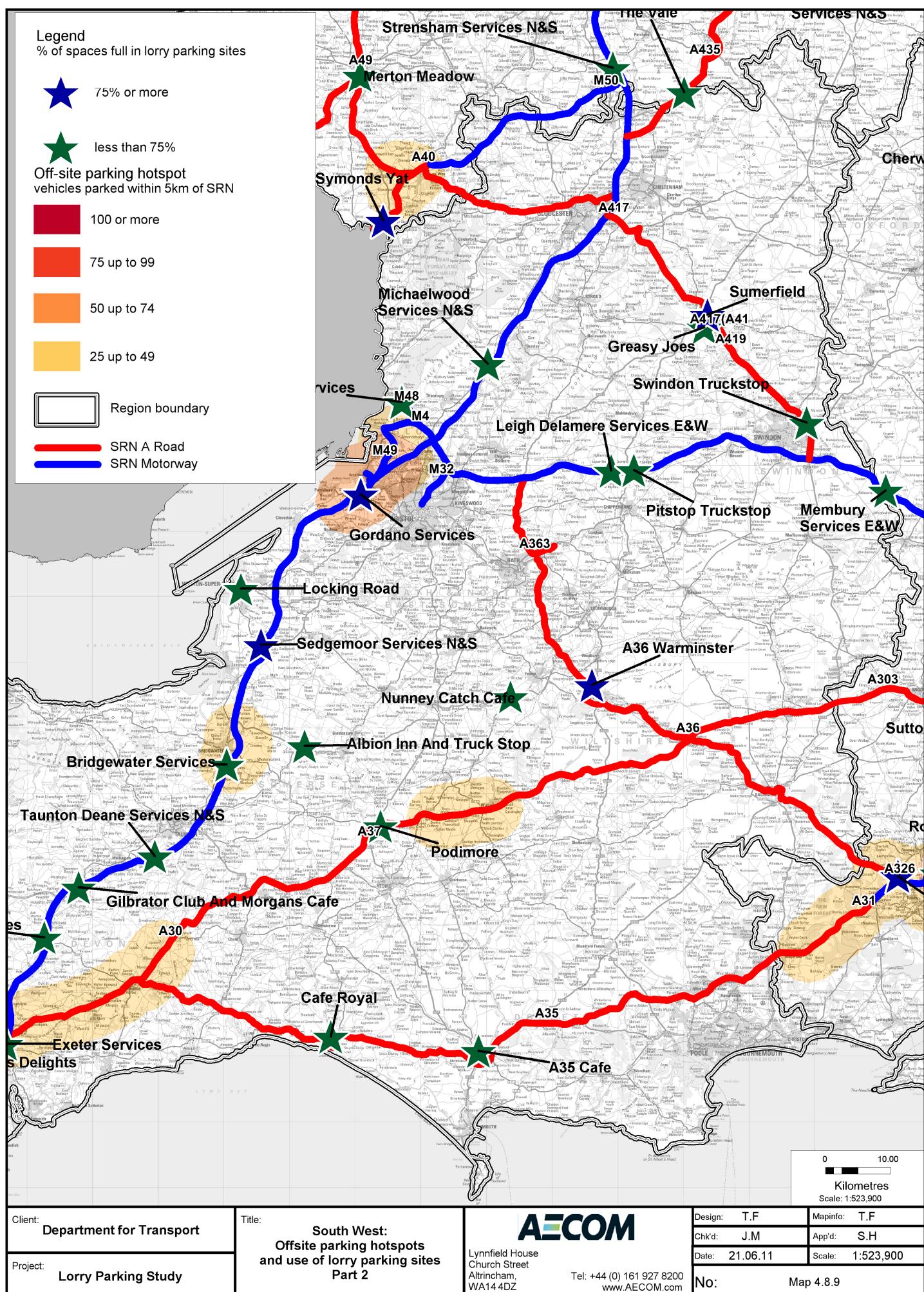
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Date: 21.06.11

Scale: 1: 967,800

No: Map 4.8.9

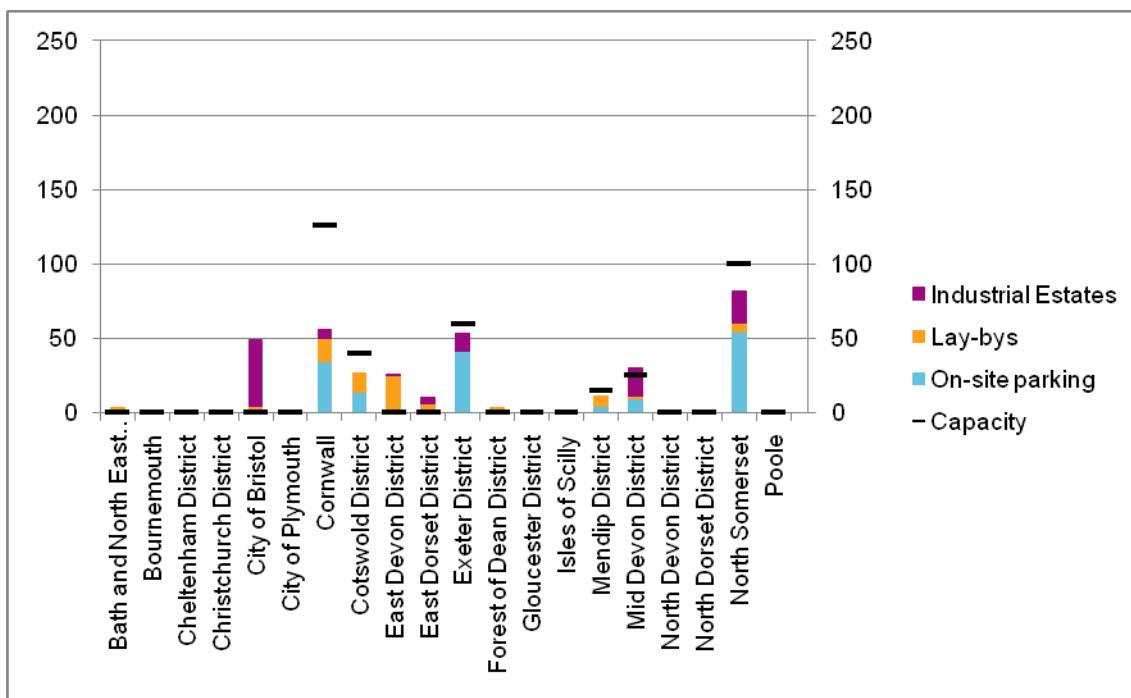


Capabilities on project:
Transportation

4.8.5 Excess Demand

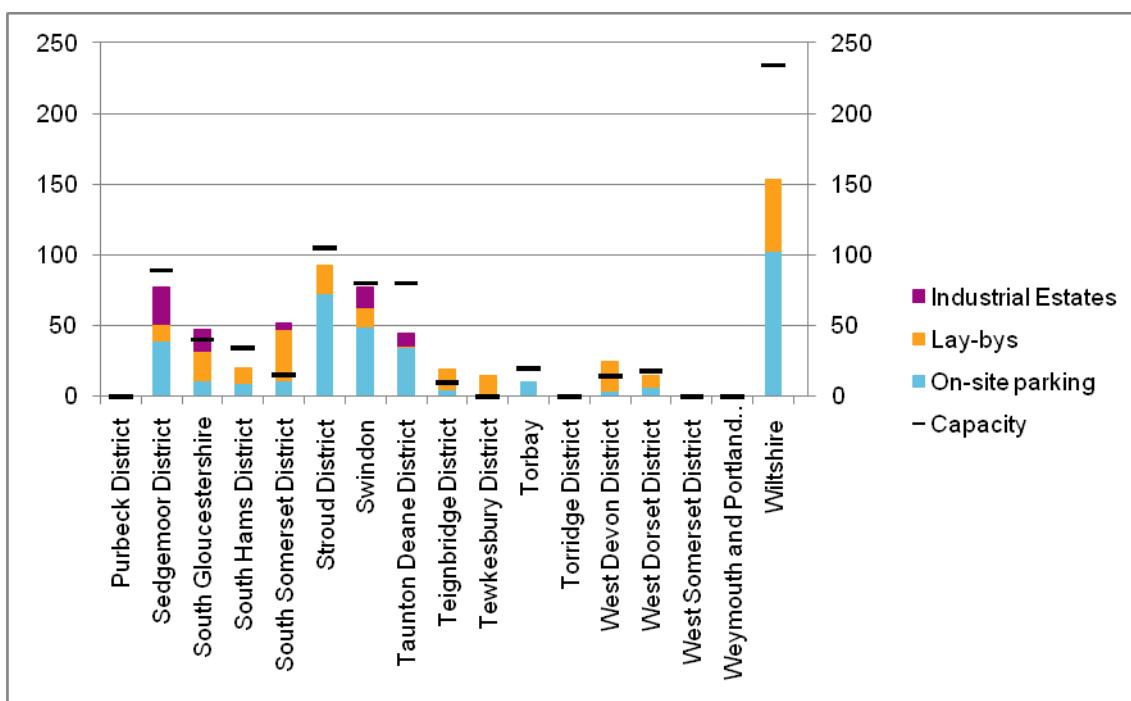
The chart below (Figure 4.19 and 4.20) shows the amount of on and off-site parking by local authority. Each column in the chart represents the total vehicles parked in the local authority broken down into on-site, lay-by and industrial estate. The black line denotes the amount of capacity in each authority, 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 accommodate all the vehicles in the region, and where vehicles were parking. For example, South Somerset had some available space on-site, but even if the lorry parks were fully utilised there would still have been significant off-site parking. Whereas, the Wiltshire column is below the black line meaning all vehicles could have been accommodated on-site.

Figure 4.19: Graph of parking trends across local authorities in South West (A-Po)



Capabilities on project:
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Figure 4.20: Graph of parking trends across local authorities in South West (Pu-Wi)

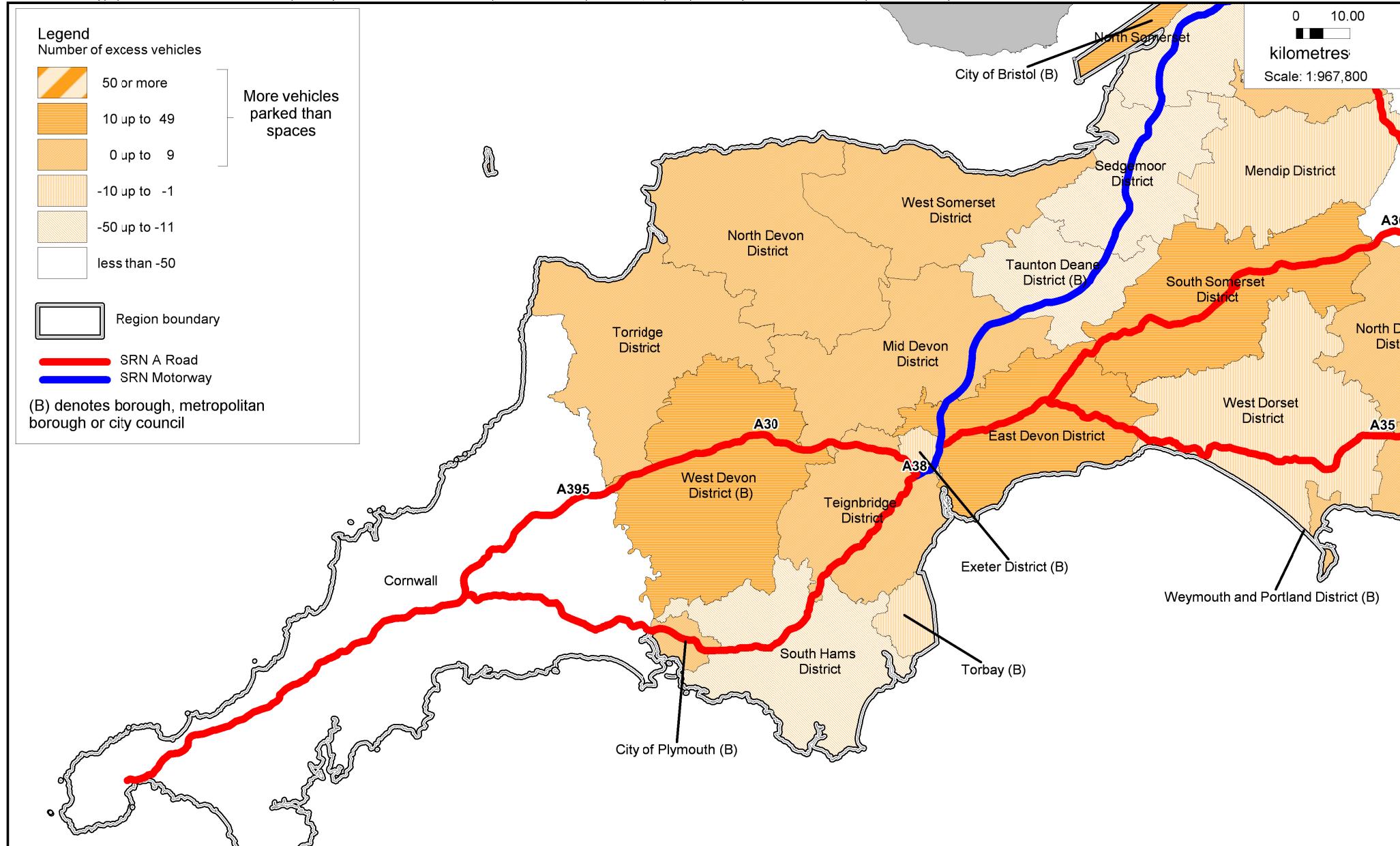


Map 4.9.10, Figure 4.19 and 4.20 above highlight that parts of the South West had more vehicles parked than spaces. This includes the City of Bristol, West Devon District and South Gloucestershire. Other local authorities had a large amount of spare spaces, including North Somerset, Cornwall and Wiltshire. This indicates that although the region overall had enough capacity, there were still shortages in some local authorities.

These charts combined with map 4.8.10 highlighted clear problems; in South Somerset, City of Bristol and West Devon. In these local authorities the demand for spaces outstripped the supply, leading to off-site parking.

Referring back to the hotspots identified earlier in section 4.8.3 (map 4.8.9) the hotspots identified around Avonmouth was located near to Gordano Services, that was more than 75% full; and Severn View Services, that was 75% or less full. This means there was limited space available and given that the off-site parking was in industrial estates, potentially near their delivery destination makes them less likely to use such available MSAs. At peak periods these MSAs would also be expected to be at or above capacity.

The hotspot around Bridgwater was caused by vehicles parking very close to Bridgwater Services, which has spaces available. The hotspot between Exeter and Chard had two lorry parking sites, both again with spaces available. Exeter Services and Dens Delights, and the hotspot near Wincanton were near to Podimore Services, which again also had spaces available. This potentially indicated that drivers were actively avoiding on-site parking.



Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Difference between number of vehicles
parked (on and off-site)
and capacity of lorry parking
Part 1

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Design: T.F

Mapinfo: T.F

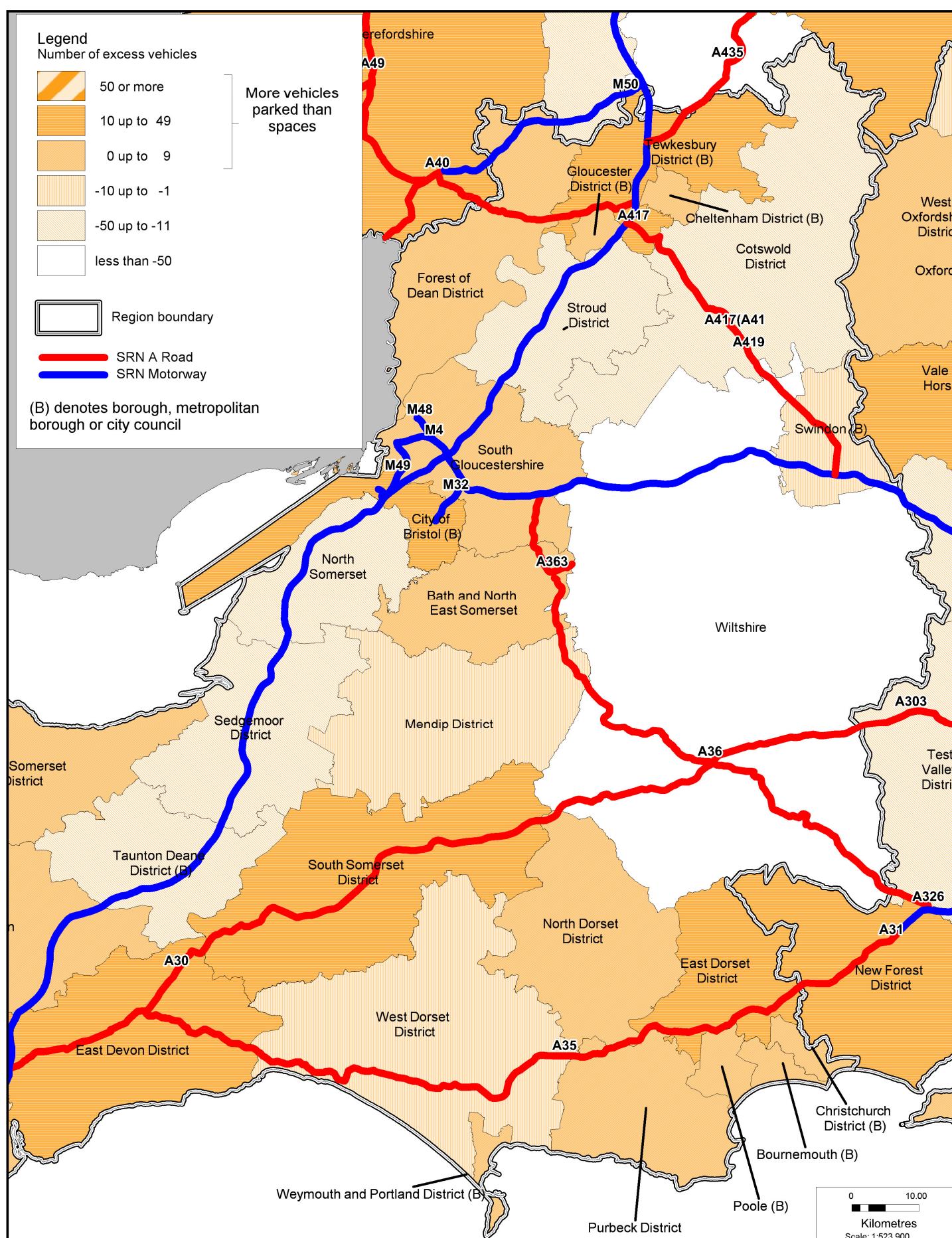
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Date: 21.06.11

Scale: 1: 967,800

No: Map 4.8.10



Client: Department for Transport	Title: South West: Difference between number of vehicles parked (on and off-site) and capacity of lorry parking Part 2	Design: T.F	Mapinfo: T.F
Project: Lorry Parking Study		Chk'd: J.M	App'd: S.H

Design: T.F
Mapinfo: T.F
Chk'd: J.M
App'd: S.H
Date: 21.06.11
Scale: 1:523,900
No: Map 4.8.10



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Transportation

Figure 4.21: Split of different parking areas across UK and non-UK vehicle types in the West Midlands

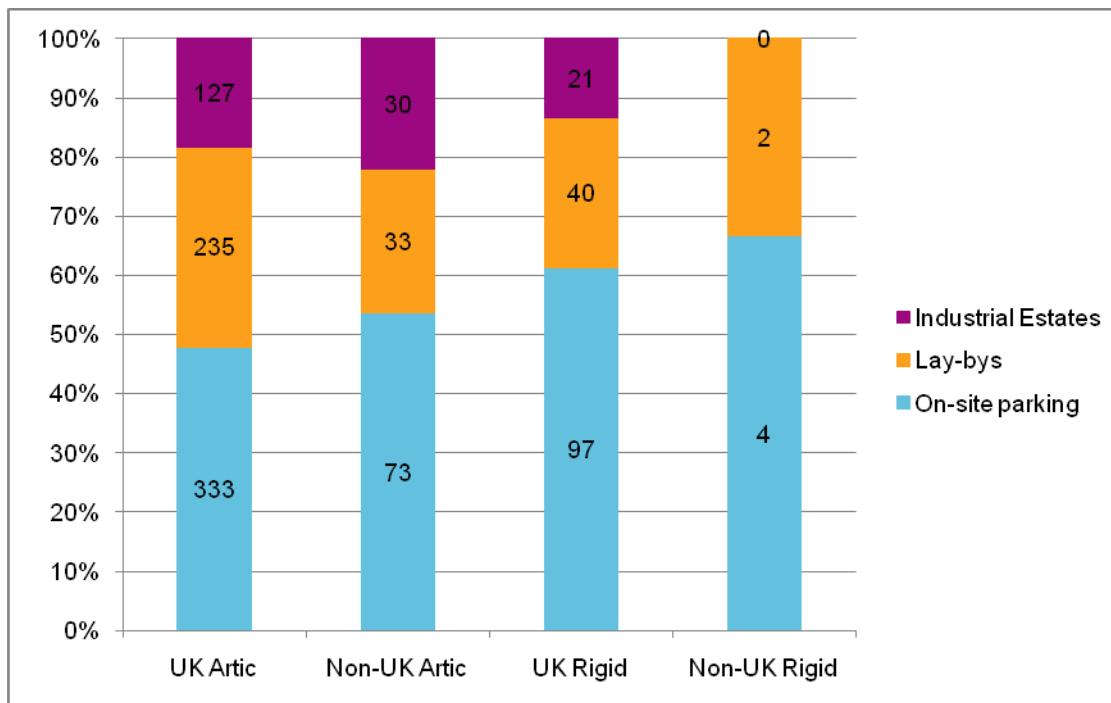


Figure 4.21 above shows the split of how different vehicle types park on-site, in lay-bys or industrial estates. This shows that UK articulated vehicles accounted for the majority of on-site parking. However, over 50% of UK registered articulated vehicles were also parking in lay-bys or industrial estates. In the South West UK registered vehicles were slightly less 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.

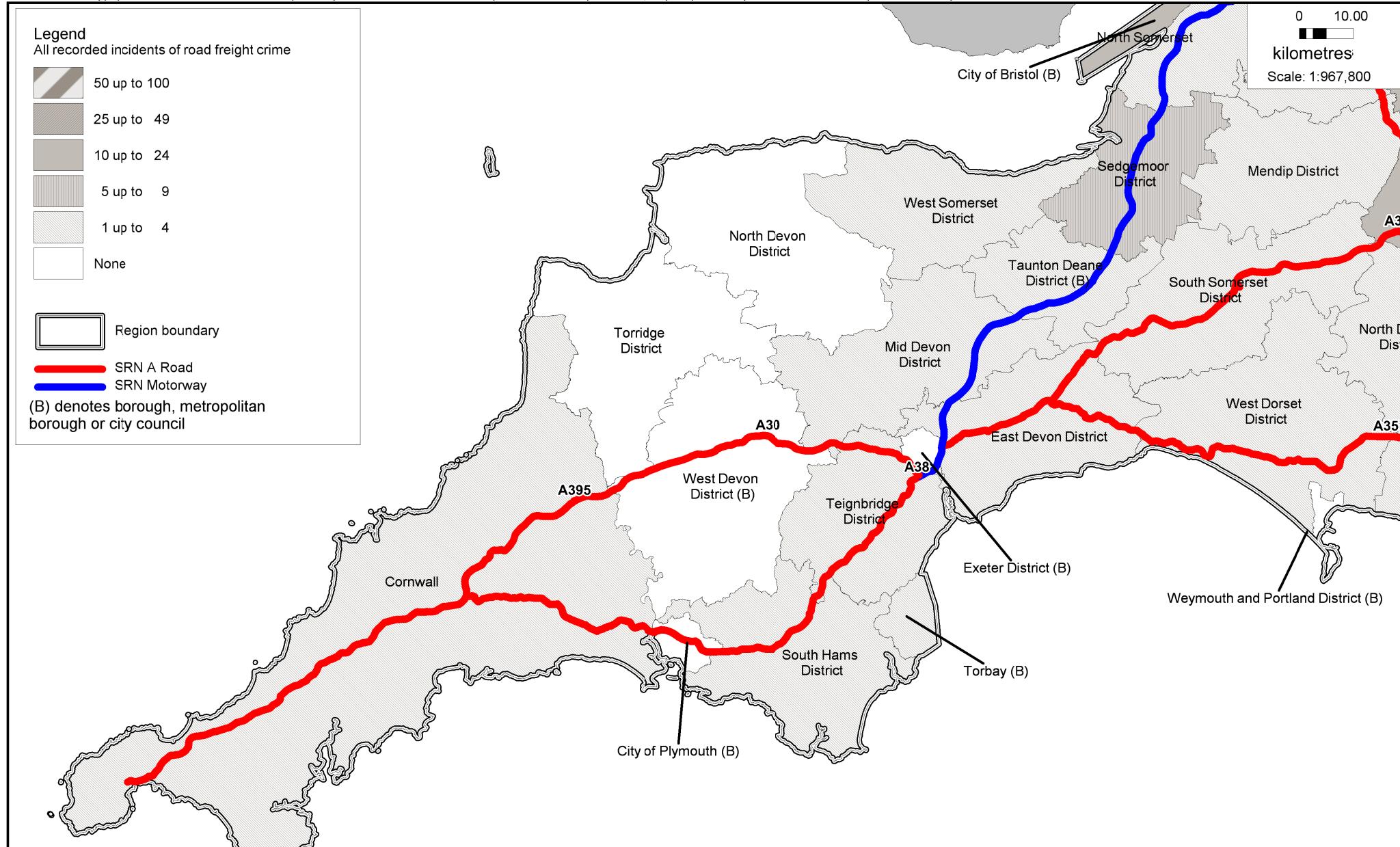
Capabilities on project:
Transportation

4.8.6 Crime Analysis

Road freight crime in the South West was low compared with national figures; however, it was still taking place and affecting the region. In total 97 crimes were reported in 2010 costing the industry an estimated £2.4 million. Wiltshire and the City of Bristol had the highest number of reported crimes with between 10 and 25 in each. Stroud, Gloucestershire and Sedgemoor which have the M5 running through them had between 6 and 10 crimes reported. There were a smaller number of crimes reported in other local authorities in the region. Map 4.8.12 shows that crimes were generally committed close to the SRN.

4.8.7 Summary

Lorry parks in the South West were quieter than other regions in England, highlighted by a utilisation of 50% which was lower than the national average. However, there were still issues with demand for parking due to the fact as many vehicles we surveyed parking off-site as were on-site.. The level of crime was also lower than the rest of England, but there were specific areas where crime was particularly high and in total costs the freight industry over £2 million per annum in this region.



Client: Department for Transport

Project: Lorry Parking Study

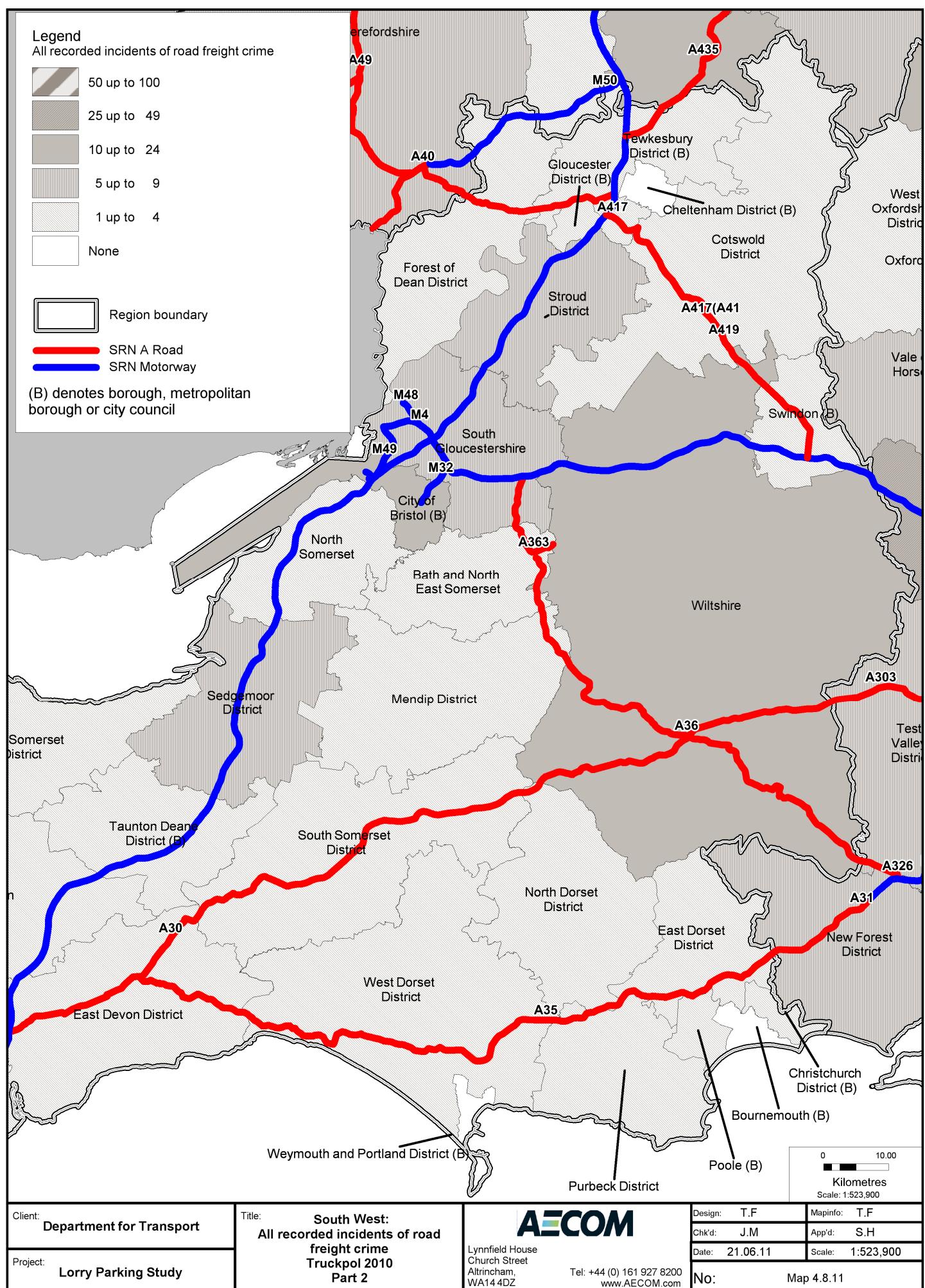
Title: South West:
All recorded incidents of road
freight crime
Truckpol 2010
Part 1

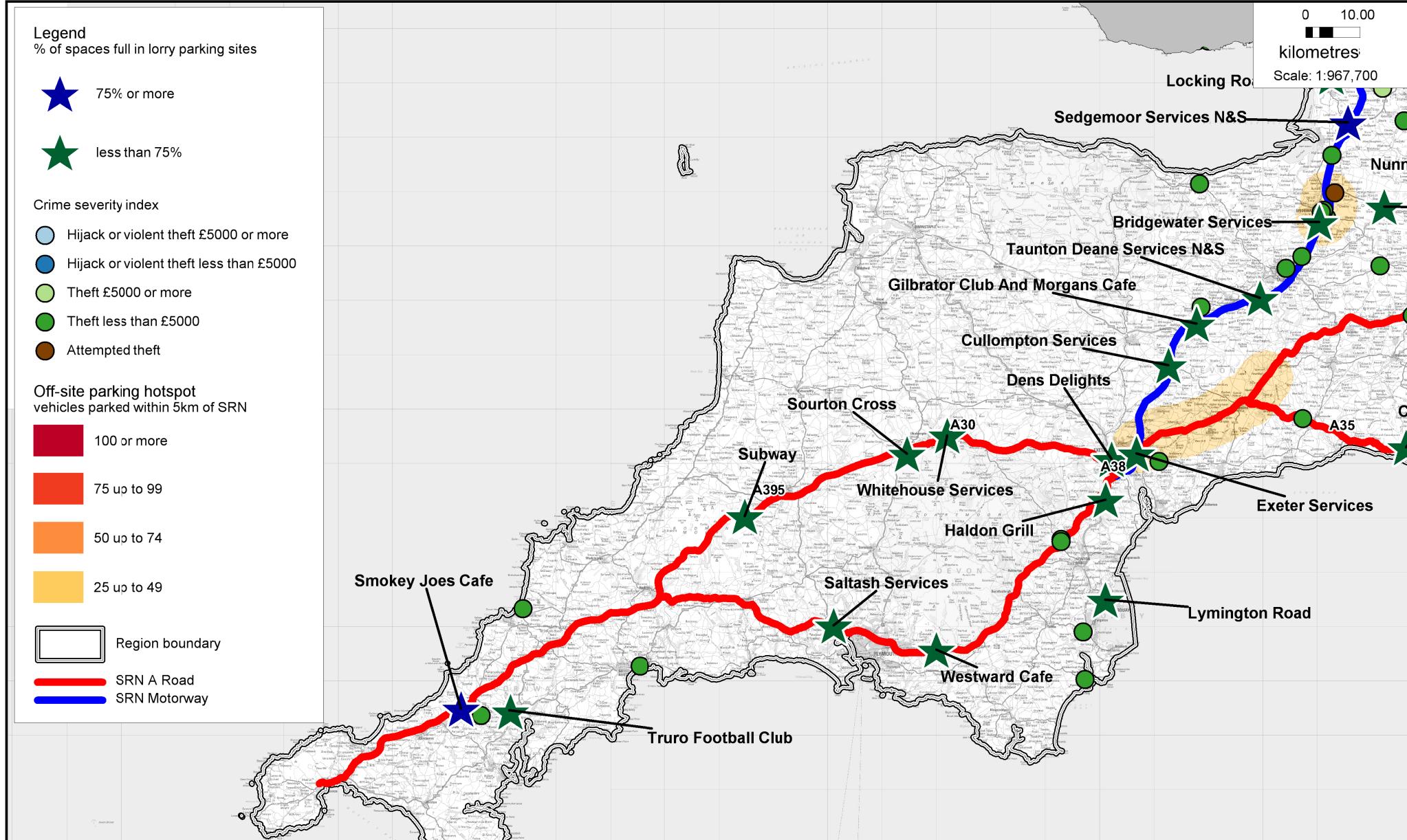
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Design: T.F	Mapinfo: T.F
Chk'd: J.M	App'd: S.H
Date: 21.06.11	Scale: 1: 967,800
No:	Map 4.8.11





Client: Department for Transport

Project: Lorry Parking Study

Title: South West:
Severity of all recorded road freight
crime in relation to off-site parking hotspots
and on-site utilisation
Part 1

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