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## 1.0 INTRODUCTION

- 1.1 This Transport Assessment has been prepared on behalf of Centros Lancaster LP in respect of an outline application (Application 17) for residential development at the junction of St Leonard Gate and Alfred Street, Lancaster, referred to as Northern Gateway.
- 1.2 The site is triangular in shape and bounded by St Leonard Gate to the west and Alfred Street to the east. The site currently accommodates a mix of uses, including part of the St Leonard Gate short-stay and long-stay car parks and an ice cream depot. As a consequence, the site is already an established traffic attractor within the City. At present, the site takes its vehicular access from St Leonard Gate and Alfred Street.
- 1.3 A plan of the site in relation to the City Centre and the local highway network is shown in Figure 1.1.
- 1.4 The proposals are to provide a residential scheme with associated car parking capable of implementation on its own. Application 17 forms part of a comprehensive development proposal for the whole of the Canal Corridor North (CCN) site, which will be implemented pursuant to a series of applications for planning permission, listed building consent and conservation area consent.
- 1.5 This Transport Statement is submitted in support of Application 17 and considers the traffic and transport implications of the proposals on a stand alone basis, with the traffic impact on the highway network assessed in detail within the Transport Assessment for Application 1, which considers the cumulative impact of the total redevelopment of the CCN site.
- 1.6 This report identifies that the development:
- is ideally located within the City Centre to encourage linked trips to employment, existing facilities and shops
  - includes a limited parking provision, to promote non-car modes of transport
  - is fully compliant with national and local sustainable transport policies
  - will have a negligible impact on the surrounding highway network
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## **2.0 SITE LOCATION AND EXISTING CONDITIONS**

### **Site Description**

- 2.1 The site is located at the junction of St Leonard Gate and Alfred Street to the northeast of Lancaster's existing City Centre boundary. It currently accommodates a mix of traffic attracting uses including part of the St Leonard Gate short-stay and long-stay car parks and an ice cream depot.
- 2.2 The site takes its vehicular access from St Leonard Gate and Alfred Street.

### **Regional Highway Network**

- 2.3 Lancaster is located approximately 6km west of Morecambe, 35km south of Kendal and 36km north of Preston. The M6, which runs from Birmingham to Carlisle, is located to the east of Lancaster with Junction 33 located to the south and Junction 34 to the north. Access from Lancaster to Morecambe is provided by Greyhound Bridge and Skerton Bridge across the Lune, with the River Lune Millenium Bridge providing an additional pedestrian and cyclist facility.

### **Local Highway Network**

- 2.4 St Leonard Gate runs in a northeast-southwest alignment forming a junction with Stonewell to the southwest, providing access to the City's ring-road system, and forming a junction with Bulk road to the northeast of the site. St Leonard Gate has regular footways on either side of the carriageway and also benefits from regular street lighting.
- 2.5 Alfred Street runs in a north- alignment forming a junction with St Leonard Gate to the north and Edward Street to the south. As part of the wider application proposals, Alfred Street will no longer accept through traffic and will solely serve the proposed private car park and the existing residential dwellings on Alfred Street and those accessed from De Vitre Street. Therefore there will be a substantial improvement in residential amenity as a result of the reduction in rat-running.
- 2.6 As mentioned previously in this report, the site in relation to the City Centre and local highway network is illustrated at Figure 1.1.
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### 3.0 SITE ACCESSIBILITY

3.1 This section of the report summarises the site's existing accessibility by bus, train, foot, cycle and car. The site lies close to the heart of Lancaster City Centre and is thus well served by existing infrastructure and public transport facilities.

#### Accessibility by Foot and Cycle

3.2 Due to its City Centre location, the site has good existing pedestrian links. There are footways and street lighting on almost all surrounding roads; these link to the wider network of footways and the pedestrianised area around the City Centre.

3.3 In addition to these footways, there is the Canal Walk footpath running immediately to the east of the site. This leads north and south from the site along the canal. The Canal Walk provides a traffic free cycle route. There are on-road cycle routes along Quarry Road to the south of the site, which link to routes to the University to the south of the site and across the Millenium Bridge to a traffic free route to Skerton and Morecombe to the west of the site. It also joins to National Cycle Route 6 to the north and south of Lancaster.

3.4 As outlined above, cycle and pedestrian access around Lancaster is considered to be good. A high percentage of people walk and cycle to work, exceeding the national average. This is supported by data received from a City Centre questionnaire undertaken in January 2006, which included questions on modes of travel to the City Centre. The respondents were able to give multiple answers and the results of the questionnaire are provided below, with further details contained in the Statement of Community Involvement report submitted with the outline application for the CCN site:

**TABLE 3.1**

Mode of Travel	Foot	Bicycle	Car	Taxi	Motorcycle	Bus	Train
Percentage	48.5	5.6	44.9	2.6	1.3	20.6	2.8

3.5 It can be seen from the above table that non-car modes of transport are popular as means of access to the City Centre. Indeed the most popular means of access is by foot, with bus use also popular and cycle use above the national average.

3.6 Lancaster has also been identified as a Cycling Demonstration Town. As such, the Council receives funding from the Department of Transport to show that increased investment can increase cycle use. The additional funding will be spent on new and improved routes, better signage, training and promotional activities as outlined below:

- complete missing links in the existing cycle network
- implement a signage strategy
- improve parking facilities
- offer training in bike confidence and cycle maintenance skills for children and adults
- implement an extensive range of promotion and publicity measures to encourage more people to cycle

3.7 A plan of the existing cycle routes within the vicinity of the site, and those proposed by the City Council and included as part of the outline Application 1 proposals, can be found at Figure 3.1.

### Bus Accessibility

3.8 Due to its central location, the site is close to numerous bus stops, including stops on Bulk Road and the main Lancaster Bus Station on Wood Street. The existing walking distances to each of these stops is shown in the following table:

**TABLE 3.2**

Stop Name	Walk Distance	Walk Time
Bulk Road	160m	2 minutes
Lancaster Bus Station	490m	6 minutes

3.9 These stops give access to the majority of bus routes serving Lancaster, giving frequent and regular services to a wide range of local and regional destinations, including St Chads Estate, Lancaster University, Ingleton, Morecambe, Preston and Keswick. It can therefore be seen that both residents and visitors will have the real potential to travel to the site by bus.

3.10 The tables below shows the bus services available from the stops on Bulk Road and Lancaster Bus Station respectively:

**TABLE 3.3**

Route Number	Destinations	Peak Hourly Frequency		
		Mon. – Fri.	Sat.	Sun.
80 / 80A	Ingleton Community Centre – Lonsdale High Street – High Bentham – Low Bentham – Wennington – Millhouses – Wray – Wray Hall – Hornby – Brookhouse – Caton – Lancaster Post House – Lancaster Bus Station	Approx. Every 2 hours	Approx. Every 2 hours	-
81	Kirkby Lonsdale – Barrow – Tunstall – Melling – Gressingham – Hornby – Brookhouse – Caton – Lancaster Post House – Lancaster Bus Station	Approx. Every 2 hours	3 Return Services Daily	-

**TABLE 3.4**

Route Number	Destinations	Peak Hourly Frequency		
		Mon. – Fri.	Sat.	Sun.
2	Morecambe Battery – Morecambe Euston Road – Torrisholme Square – Lancaster Bus Station – Lancaster Common – Bowerham Hotel – Newmarket Avenue – Hala Square – Boot & Shoe Hotel – Lancaster University Underpass	Approx. Every 20 mins	-	-
2A	Heysham – Heysham Towers – Kingsway Shops - Morecambe Battery – Morecambe Euston Road – Torrisholme Square – Lancaster Bus Station – Lancaster Common – Bowerham Hotel – Newmarket Avenue – Hala Square – Boot & Shoe Hotel – Lancaster University Underpass	Approx. Every 20 mins	Approx. Every 15 mins	Approx. Every 30 mins
3	Morecambe Battery – Bare Railway Station – Torrisholme Square – Lancaster Bus Station – Common Garden Street – Bowerham Hotel – Hala Square – Lancaster University	Approx. Every 30 mins.	Approx. Every 30 mins.	-
3A	Higher Heysham – Heysham Towers – Morecambe Battery – Bare Lane Railway Station – Torrisholme Square – Lancaster Bus Station – Common Garden Street – Bowerham Hotel – Hala Square – Lancaster University	-	-	Approx. Every 1 hour
4	Higher Heysham – Heysham Towers – Morecambe Battery – Bare Lane Railway Station – Torrisholme Square – Lancaster Bus Station – Common Garden Street – Bowerham Hotel – Hala Square – Lancaster University	Approx. Every 30 mins.	Approx. Every 30 mins.	-
6A	Morecambe Bus Station – Morecambe Arndale Centre – Morecambe Clock Tower – Westgate Altham Road – Westgate Gringley Road – White Lund Northgate – Asda/Salt Ayre Leisure Centre – Lancaster Bus Station	Approx. Every 1 hour	Approx. Every 1 hour	-
8	St. Chads Estate – Ryelands Denny Avenue – Lancaster Bus Station – Lancaster Leisure Park gates – Moor Hospital – Lancaster Farms Prison – Freehold – George Street – Lancaster Bus Station – Ryelands Denny Avenue – St. Chads Estate	Approx. Every 1 hour	Approx. Every 1 hours	-
10	Lancaster Bus Station – Common Garden Street – Freehold Dalton Road – Ridge Estate – George Street – Lancaster Bus Station	Approx. Every 30 mins	Approx. Every 1 hours	-
25	Lancaster Bus Station – Lancaster George Street – Lancaster Common – Lancaster Primrose Street – Lancaster Bowerham Hotel – Lancaster Cork Road – Lancaster Anderson Close – Lancaster Williamson Park gates – Lancaster George Street – Lancaster Bus Station	Approx. Every 30 mins	Approx. Every 30 mins	-
40 / 41	Morecambe Battery – Morecambe Bus Station – Lancaster Bus Station – Lancaster University Gates – Galgate Crossroads – Cabus Little Chef – Garstang Bridge Street - Garstang High School – Catterall Brockholes Arms – Bilsborrow Roebuck – Broughton Post Office – Preston Bus Station	Approx. Every 20 mins	Approx. Every 30 mins	Approx. Every 20 mins
42	Morecambe Battery – Morecambe Bus Station – Lancaster Bus Station – Lancaster University Gates – Galgate Crossroads – Cabus Little Chef – Garstang Bridge Street – Churchtown Horns Inn – St Michaels Grapes Hotel – Great Ecclestone – Singleton – Poulton Church – Jct Blackpool Old Road – Poulton - Blackpool	Approx. Every 1 hour	Approx. Every 1 hour	Approx. Every 20 mins

49	Halton – Beaumont Green – Norfolk Street – Lancaster Bus Station – George Street	Approx. Every 30 mins.	Approx. Every 30 mins.	Approx. Every 2 hours
55 / 55A	Warton – Carnforth – Bolton le Sands – Hest Bank – Beaumont Bridge – Lancaster Bus Station	Approx. Every 30 mins.	Approx. Every 30 mins.	Approx. Every 1 hour
80 / 80A	Ingleton Community Centre – Lonsdale High Street – High Bentham – Low Bentham – Wennington – Millhouses – Wray – Wray Hall – Hornby – Brookhouse – Caton – Lancaster Post House – Lancaster Bus Station	Approx. Every 2 hours	Approx. Every 2 hours	-
81	Kirkby Lonsdale – Burrow – Tunstall – Melling – Gressingham – Hornby – Brookhouse – Caton – Lancaster Post House – Lancaster Bus Station	Approx. Every 2 hours	3 Return Services Daily	-
89	Lancaster Bus Station – Lancaster Common – Conder Green – Glasson Dock – Thurnham – Cockerham – Stakepool – Pilling – Preesall – Knott End	Approx. Every 2 hours	Approx. Every 2 hours	Approx. Every 2 hours
146	Abbeystead – Dolphinholme – Galgate – Lancaster Bus Station	3 Return Services Daily	1 Return Service Daily	-
555	Lancaster Bus Station – Beaumont Bridge – Bolton le Sands – Carnforth – Burton – Holme – Milnthorpe Square – Levens Bridge – Kendal Bus Station – Staveley – Windermere – Troutbeck Bridge – Brockhole National Park Centre – Waterhead Hotel – Ambleside – Rydal Church – Grasmere Centre – Grasmere – Whythburn Church – Thirspot – Keswick	Approx. Every 1 hour	Approx. Every 1 hour	Approx. Every 2 hours
X2	Lancaster Bus Station – Lancaster Common – Lancaster University Underpass – University South West Campus	Approx. Every 20 mins	Approx. Every 20 mins	Approx. Every 20 mins

3.11 The above tables clearly demonstrate that the site has excellent bus accessibility, with routes available to a wide range of local and regional destinations. A plan illustrating the local bus routes and services is provided at Figure 3.1.

### Rail Accessibility

3.12 Lancaster Rail Station lies on Meeting House Lane, approximately 1,000m (13 minutes walk) to the west of the site. It is managed by Virgin Trains. It has a taxi rank and 20 cycle spaces in stands/lockers (all sheltered with CCTV in operation).

3.13 Available services are summarised in the following table:

**TABLE 3.6**

Route	Operator	Peak Hourly Frequency		
		Mon. – Fri.	Sat.	Sun.
Manchester Airport - Heald Green - Manchester Piccadilly – Manchester Oxford Road - Deansgate - Salford Crescent - Bolton - Chorley - Preston – Lancaster - Carnforth - Silverdale - Arnside - Grange-over-Sands - Kents Bank - Cark & Cartmel - Ulverston - Dalton - Roose - Barrow-in-Furness - Oxenholme (Lake District) - Kendal – Windermere - Edinburgh	TransPennine Express	Approx. 5 per hour	Approx. 4 per hour	Approx. 3 per hour
Carlisle - Dalston - Wigton - Aspatria - Maryport - Flimby - Workington - Harrington - Parton - Whitehaven - Corkickle - St Bees - Nethertown - Braystones - Sellafield - Seascale - Drigg - Ravenglass for Eskdale - Bootle - Silecroft - Millom - Green Road - Foxfield - Kirkby-in-Furness - Askam - Barrow-in-Furness - Roose - Ulverston - Cark - Kents Bank - Grange-over-Sands - Arnside - Silverdale - Carnforth - Lancaster - Preston - Manchester Piccadilly - Manchester Airport	Northern Rail	Approx. 1 per hour	Approx. 1 per hour	Approx. every 2 hours
Leeds - Bradford Forster Sq - Shipley - Bingley - Keighley - Skipton - Gargrave - Hellifield - Long Preston - Giggleswick - Clapham - Bentham - Wennington – Carnforth - Lancaster - Windermere - Bare Lane - Morecambe - Settle - Horton in Ribblesdale - Ribbleshead - Garsdale - Kirkby Stephen - Appleby - Langwathby - Lazonby and Kirk. - Armathwaite - Carlisle - Motherwell - Glasgow Central	Northern Rail	Approx. every 2-3 hours	Approx. every 2-3 hours	Approx. every 2 per day
Brighton - Gatwick - Guildford - Bournemouth - Brockenhurst - Southampton - Winchester - Basingstoke - Reading - Oxford – Banbury - Leam Spa - Coventry - Birmingham International - Birmingham NS - Tamworth – Berwick- Dunbar – Wolverhampton - Crewe - Wigan - Preston - Lancaster – Penrith - Carlisle - Lockerbie - Haymarket – Edinburgh	Virgin Rail	Approx. 1 per hour	Approx. 1 per hour	Approx. 1 per hour
Glasgow Central - Motherwell - Carlisle - Penrith North Lakes - Oxenholme (Lake District) - Lancaster - Preston - Wigan North Western - Warrington Bank Quay - Crewe - Milton Keynes Central - Watford Junction - London Euston	Virgin Rail	Approx. 1 per hour	Approx. 1 per hour	Approx. 1 per hour

3.14 It can be seen from the above table that local services are provided to and from Morecambe, Carnforth and Barrow. National services run to Manchester, Bolton, Chorley, Preston, Kendal, Windermere, Carlisle, Brighton and London, providing real opportunities for residents and visitors to access the site by rail.

### **Accessibility Summary**

- 3.15 It is evident from the above that the site's central location within the City gives it excellent accessibility. There is a wide choice of public transport services within easy walking distance. The local pedestrian infrastructure is of a good standard and there are also on and off-road cycle routes available. An illustration of the site in relation to these transport facilities is provided at Figure 3.3.
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#### **4.0 DEVELOPMENT PROPOSALS**

- 4.1 The proposals are for a residential development of between 58 – 68 units, including 50 – 60 apartments and 8 townhouses on Alfred Street.
  - 4.2 Access to the site will be gained from a new access onto St Leonard Gate to an underground car park, with a separate egress provided onto Alfred Street. Refuse servicing will be undertaken from Alfred Street.
  - 4.3 28 - 45 car parking spaces will be provided in the underground car park with an additional 6 car parking spaces provided on Alfred Street for the townhouses as part of the application proposals. This includes a disabled parking provision of 3 spaces in the underground car park.
  - 4.4 The Joint Lancashire Structure Plan 2001 – 2016 outlines the parking standards for the County. This provides maximum standards with an average of 1.5 spaces or less being required for residential development with high accessibility. The provision of a total of 34 - 51 spaces accords with the County Council parking standards and has been limited in accordance with the site's good level of accessibility and to promote non-car modes of transport
  - 4.5 The cycle parking provision has been based upon the requirement of 1 space per 1-2 bed dwelling and 2 spaces per 3-4 bed dwelling, therefore 66 – 76 cycle parking spaces will be provided on the site as part of the application proposals.
  - 4.6 Each unit will have a secure, covered cycle parking space, which will help to promote cycle use, located in the underground car park.
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## 5.0 PLANNING POLICY CONTEXT

- 5.1 Planning Policy Guidance Notes (PPGs) and their replacements Planning Policy Statements (PPSs) are prepared by the government to provide guidance on planning policy and the operation of the planning system.

### **National Planning Policy – PPG 13 (Transport)**

- 5.2 Planning Policy Guidance 13's (PPG 13) objectives are to integrate planning and transport at the national, strategic and local level and to promote more sustainable transport choices both for carrying people and for moving freight.

*'The objectives of this guidance are to integrate planning and transport at the national, regional, strategic and local level to:*

- *promote more sustainable transport choices for both people and for moving freight*
- *promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling*
- *reduce the need to travel, especially by car'*

- 5.3 The general accessibility of a site is further identified at Paragraph 18:

*'A key planning objective is to ensure that jobs, shopping, leisure facilities and services are accessible by public transport, walking and cycling. This is important for all, but especially for those who do not have regular use of a car, and to promote social inclusion. In preparing their development plans, local authorities should give particular emphasis to accessibility in identifying the preferred areas and sites where such land uses should be located to ensure they will offer realistic, safe and easy access by a range of transport modes, and not exclusively by car.'*

### **Planning Policy Statement 1– PPS 1 (Sustainable Development)**

- 5.4 Planning Policy Statement 1 (PPS1) sets out the overarching planning policies on the delivery of sustainable development through the planning system.

- 5.5 Paragraph 27 (v) identifies the need for development to be located in sustainable, accessible locations as outlined below:

*'Provide improved access for all to jobs, health, education, shops, leisure and community facilities, open space, sport and recreation, by ensuring that new development is located where everyone can access services or facilities on foot, bicycle or by public transport, rather than having to rely on access by car, while recognising that this may be more difficult in rural areas.'*

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5.6 With reference to transport accessibility further stated at Paragraph 27 (Vii):

*'Reduce the need to travel and encourage accessible public transport provision to secure more sustainable patterns of transport development. Planning should actively manage patterns of urban growth to make the fullest use of public transport and focus development in existing centres and near to major public transport interchanges.'*

**Planning Policy Statement 3– PPS 3 (Housing)**

5.7 Planning Policy Statement 3 (PPS3) sets out the national planning policy framework for delivering the Government's housing objectives.

5.8 Paragraph 10 refers to housing policy objectives, with specific outcomes that the planning system should deliver including:

- *'Housing developments in suitable locations, which offer a good range of community facilities and with good access to jobs, key services and infrastructure.'*
- *'A flexible, responsive supply of land – managed in a way that makes efficient and effective use of land, including re-use of previously developed land, where appropriate.'*

5.9 The requirement to provide housing in suitable locations is stated at Paragraph 36, as outlined below:

*'In support of its objective of creating mixed and sustainable communities, the Government's policy is to ensure that housing is developed in suitable locations which offer a range of community facilities and with good access to jobs, key services and infrastructure.'*

5.10 Paragraph 36 continues:

*'The priority for development should be previously developed land in particular vacant and derelict sites and buildings.'*

5.11 The re-use of land is supported at Paragraph 40:

*'A key objective is that Local Planning Authorities should continue to make effective use of land by re-using land that has been previously developed.'*

**Joint Lancashire Structure Plan 2001 - 2016**

5.12 The Joint Lancashire Structure Plan 2001 – 2016 has been prepared by Lancashire County Council, Blackburn with Darwen Borough Council and Blackpool Borough Council. The plan was adopted in March 2005 and aims to secure the efficient use of land in the interests of the public. It sets out strategic policies and proposals for the development, use and conservation of land in Lancashire.

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5.13 The Structure Plan refers to Transport in Paragraph 5.6 below:

*'Accessibility to jobs services and leisure for everyone, particularly by walking, cycling and public transport is a central strand of the Strategy. It is important that everyone can get to where jobs and services are. New development should be located with this in mind. Equally the social inclusion agenda has helped shape transport investment priorities. Locating development in town centres and other sites with good public transport access is fundamental.'*

5.14 The location of housing is discussed in Paragraph 5.10 item 3, identifying that additional housing should be provided for by:

*'Making the best use of brownfield sites. An overall target of 70% of housing requirements to be met on brownfield land has been set.'*

5.15 It is considered that the development proposals accord with both local and national planning policy. The proposals are to redevelop an existing city centre brownfield site. The site is located in an accessible location with local amenities, leisure facilities and employment opportunities available. The site is located close to the heart of the centre and benefits from good pedestrian and cycle routes and facilities. Public transport interchanges are also located within walking distance of the site, providing a wide variety of transport choices to potential residents and visitors of the scheme. The level of vehicle parking has also been limited in accordance with the site's good level of accessibility and to promote non-car modes of transport, and will be supported by a good level of cycle parking to encourage sustainable modes of travel.

#### **Draft Regional Spatial Strategy for the North West (January 2006)**

5.16 As a result of the Planning and Compulsory Purchase Act, the existing Regional Planning Guidance for the North West (RPG13) became the Regional Spatial Strategy (RSS) for the North West. It includes the Regional Transport Strategy.

5.17 The Draft RSS for the North West was submitted to the Government on 30th January 2006. Following the Examination in Public, the Panel prepared a report of findings and recommendations on how the draft Regional Spatial Strategy might be improved. This Report was published for information on 8 May 2007.

5.18 The Secretary of State has considered the Report, together with representations made on the draft RSS and proposed changes were published on the 20<sup>th</sup> March 2008 and the consultation period will run until 23<sup>rd</sup> May 2008. The Secretary of State is expected to publish the final North West Plan in July / August 2008.

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5.19 The RSS will provide a framework for development of the region over the next 15 to 20 years. It addresses the scale and distribution of future housing development, sets priorities for amongst other things, dealing with environmental issues, infrastructure, transport and economic development. The key test for achieving a successful RSS is set as being the extent to which spatial development within the region adopts the principles of sustainable development.

5.20 Key objectives to be achieved by 2021 through the range of policies are identified as achieving:

- the introduction of a safe, reliable and effective integrated transport network that supports opportunities for sustainable growth and provides better links with jobs and services.

5.21 The Plan sets out four regional development principles in policy DP1. These are to:

- make more sustainable transparent decisions;
- make better use of land buildings and infrastructure;
- ensure quality in development; and
- tackle Climate Change

5.22 Policy RDF 1 sets out the main development locations within the region and confirms that:

‘plans and strategies will support the concentration of “most new development in the region within the urban areas of the Regional Centres, Regional Towns and Cities”

5.23 Lancaster is identified as being a Regional City.

**The Secretary of State’s Proposed Changes to the Draft Regional Spatial Strategy**

5.24 The Proposed Changes to the RSS alters the policy to set out the priority areas for growth. Lancaster is specifically included within the third tier of priority growth areas and is highlighted as a city that offers ‘particular opportunities for growth which should be harnessed in suitable ways.’

5.25 The Proposed Changes to the Policy W1 make specific reference to Lancaster as follows:

*‘realising the opportunities for sustainable development to increase the prosperity of Carlisle and Lancaster .....’*

5.26 The car parking provision has been set to accord with local and national policy, and has been agreed through discussions with the City and County Councils. Centros is committed to operating a comprehensive Travel Plan for residents and visitors. Dedicated and secure cycle facilities are to be provided on the Site.

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## 6.0 TRAFFIC ATTRACTION

6.1 The site currently accommodates a mix of uses, including part of the St Leonard Gate short-stay and long-stay car parks and an ice cream depot, which are existing traffic attractors. No allowance has been made for the traffic attraction of the existing uses on the Site. This is clearly a robust assessment, as their would evidently be some traffic saving associated with the loss of the existing uses.

6.2 The traffic impact for the proposed scheme has been examined for the weekday peak periods of the surrounding highway network, as identified in the Transport Assessment for Application 1 and outlined below:

- AM Peak 08:00 – 09:00
- PM Peak 16:15 – 17:15

6.3 The traffic attraction for the development has been assessed using the TRICS database for the maximum of 68 residential units. The database contains the results of traffic surveys of various developments and is a widely accepted method of calculating traffic attraction for residential developments. The traffic attraction for the peak periods, based on privately owned flats, is outlined below with full TRICS outputs contained at Appendix A:

**TABLE 6.1**

Class Use	AM Peak		PM Peak	
	Arr.	Dep.	Arr.	Dep.
Residential - Flats	4	11	7	4
Residential – Houses	1	3	3	1
Residential - Total	5	14	10	5

6.4 It can be seen from the table above that the traffic attraction of the scheme is minimal and is likely to result in a positive reduction in traffic after the existing uses have been taken into account. It is therefore considered no further assessment is required.

## 7.0 CONCLUSION

- 7.1 This report has been prepared on behalf of Centros Lancaster LP in respect of the proposed Northern Gateway residential development in Lancaster.
- 7.2 The proposals are for a residential development comprising between 50 – 60 apartment dwellings and 8 town houses. A car parking provision of 34 - 51 spaces has been limited to promote non-car modes of transport, in accordance with local and national planning policy.
- 7.3 Cycle parking provision of 1 space per dwelling 1-2 bed dwelling and 2 spaces per 3-4 bed dwelling will be provided in the underground car park, in accordance with local parking standards and local and national planning policy.
- 7.4 The development proposals accord with local and national planning policies as outlined below:
- the site is located in an accessible location with good links to local amenities and employment opportunities
  - public transport interchanges are located within walking distance of the site, providing a wide variety of transport choices to potential residents and visitors
  - the parking provision has been limited in accordance with the site's good level of accessibility and to promote non-car modes of transport
  - the proposals are to redevelop an existing brownfield site
- 7.5 This report demonstrates:
- that the site is ideally located within the City Centre to encourage linked trips to existing facilities and shops
  - that the traffic attraction of the scheme is minimal and is likely to result in a negative impact after the existing uses have been taken into account
  - that the site is fully compliant with national and local sustainable transport policies
- 7.6 It is therefore considered that this development should not be resisted on highways or transportation grounds.



**Appendix A**  
TRICS Outputs

**NORTHERN GATEWAY RESIDENTIAL - FLATS PRIVATELY WEEKDAY**  
**Calculation Factor: 1 HHOLDS 60 Units**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trips	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trips	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trips
00:00-01:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
01:00-02:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
02:00-03:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
03:00-04:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
04:00-05:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
05:00-06:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
06:00-07:00	1	215	0.0	0	1	215	0.0	1	1	215	0.0	1
07:00-08:00	6	89	0.0	1	6	89	0.1	7	6	89	0.1	8
08:00-09:00	6	89	0.1	4	6	89	0.2	11	6	89	0.2	15
09:00-10:00	6	89	0.1	4	6	89	0.1	6	6	89	0.2	11
10:00-11:00	6	89	0.1	4	6	89	0.1	5	6	89	0.1	9
11:00-12:00	6	89	0.0	2	6	89	0.1	4	6	89	0.1	6
12:00-13:00	6	89	0.1	4	6	89	0.1	4	6	89	0.1	8
13:00-14:00	6	89	0.1	4	6	89	0.1	5	6	89	0.1	9
14:00-15:00	6	89	0.1	4	6	89	0.1	4	6	89	0.1	9
15:00-16:00	6	89	0.1	5	6	89	0.1	5	6	89	0.2	11
16:00-17:00	6	89	0.1	6	6	89	0.1	3	6	89	0.2	9
17:00-18:00	6	89	0.2	10	6	89	0.1	5	6	89	0.2	15
18:00-19:00	6	89	0.2	11	6	89	0.1	6	6	89	0.3	17
19:00-20:00	3	88	0.1	8	3	88	0.1	7	3	88	0.2	15
20:00-21:00	3	88	0.1	7	3	88	0.1	5	3	88	0.2	12
21:00-22:00	1	215	0.1	6	1	215	0.1	4	1	215	0.2	9
22:00-23:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
23:00-24:00	0	0	0.0	0	0	0	0.0	0	0	0	0.0	0
<b>Daily Trip Rates:</b>			<b>1.3</b>	<b>81</b>			<b>1.4</b>	<b>82</b>			<b>2.7</b>	<b>163</b>

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trips	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trips	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trips
07:00 - 07:15	6	89	0.0	0.3	6	89	0.0	1.8	6	89	0.0	2.1
07:15 - 07:30	6	89	0.0	0.3	6	89	0.0	1.8	6	89	0.0	2.1
07:30 - 07:45	6	89	0.0	0.3	6	89	0.0	1.8	6	89	0.0	2.1
07:45 - 08:00	6	89	0.0	0.3	6	89	0.0	1.8	6	89	0.0	2.1
08:00 - 08:15	6	89	0.0	0.9	6	89	0.0	2.7	6	89	0.1	3.7
08:15 - 08:30	6	89	0.0	0.9	6	89	0.0	2.7	6	89	0.1	3.7
08:30 - 08:45	6	89	0.0	0.9	6	89	0.0	2.7	6	89	0.1	3.7
08:45 - 09:00	6	89	0.0	0.9	6	89	0.0	2.7	6	89	0.1	3.7
09:00 - 09:15	6	89	0.0	1.1	6	89	0.0	1.5	6	89	0.0	2.6
09:15 - 09:30	6	89	0.0	1.1	6	89	0.0	1.5	6	89	0.0	2.6
09:30 - 09:45	6	89	0.0	1.1	6	89	0.0	1.5	6	89	0.0	2.6
09:45 - 10:00	6	89	0.0	1.1	6	89	0.0	1.5	6	89	0.0	2.6
10:00 - 10:15	6	89	0.0	1.0	6	89	0.0	1.2	6	89	0.0	2.2
10:15 - 10:30	6	89	0.0	1.0	6	89	0.0	1.2	6	89	0.0	2.2
10:30 - 10:45	6	89	0.0	1.0	6	89	0.0	1.2	6	89	0.0	2.2
10:45 - 11:00	6	89	0.0	1.0	6	89	0.0	1.2	6	89	0.0	2.2
11:00 - 11:15	6	89	0.0	0.5	6	89	0.0	1.1	6	89	0.0	1.6
11:15 - 11:30	6	89	0.0	0.5	6	89	0.0	1.1	6	89	0.0	1.6
11:30 - 11:45	6	89	0.0	0.5	6	89	0.0	1.1	6	89	0.0	1.6
11:45 - 12:00	6	89	0.0	0.5	6	89	0.0	1.1	6	89	0.0	1.6
12:00 - 12:15	6	89	0.0	1.1	6	89	0.0	0.9	6	89	0.0	2.0
12:15 - 12:30	6	89	0.0	1.1	6	89	0.0	0.9	6	89	0.0	2.0
12:30 - 12:45	6	89	0.0	1.1	6	89	0.0	0.9	6	89	0.0	2.0
12:45 - 13:00	6	89	0.0	1.1	6	89	0.0	0.9	6	89	0.0	2.0
13:00 - 13:15	6	89	0.0	1.0	6	89	0.0	1.1	6	89	0.0	2.1
13:15 - 13:30	6	89	0.0	1.0	6	89	0.0	1.1	6	89	0.0	2.1
13:30 - 13:45	6	89	0.0	1.0	6	89	0.0	1.1	6	89	0.0	2.1
13:45 - 14:00	6	89	0.0	1.0	6	89	0.0	1.1	6	89	0.0	2.1
14:00 - 14:15	6	89	0.0	1.1	6	89	0.0	1.1	6	89	0.0	2.2
14:15 - 14:30	6	89	0.0	1.1	6	89	0.0	1.1	6	89	0.0	2.2
14:30 - 14:45	6	89	0.0	1.1	6	89	0.0	1.1	6	89	0.0	2.2
14:45 - 15:00	6	89	0.0	1.1	6	89	0.0	1.1	6	89	0.0	2.2
15:00 - 15:15	6	89	0.0	1.3	6	89	0.0	1.4	6	89	0.0	2.7
15:15 - 15:30	6	89	0.0	1.3	6	89	0.0	1.4	6	89	0.0	2.7
15:30 - 15:45	6	89	0.0	1.3	6	89	0.0	1.4	6	89	0.0	2.7
15:45 - 16:00	6	89	0.0	1.3	6	89	0.0	1.4	6	89	0.0	2.7
16:00 - 16:15	6	89	0.0	1.5	6	89	0.0	0.8	6	89	0.0	2.4
16:15 - 16:30	6	89	0.0	1.5	6	89	0.0	0.8	6	89	0.0	2.4
16:30 - 16:45	6	89	0.0	1.5	6	89	0.0	0.8	6	89	0.0	2.4
16:45 - 17:00	6	89	0.0	1.5	6	89	0.0	0.8	6	89	0.0	2.4
17:00 - 17:15	6	89	0.0	2.6	6	89	0.0	1.2	6	89	0.1	3.7
17:15 - 17:30	6	89	0.0	2.6	6	89	0.0	1.2	6	89	0.1	3.7
17:30 - 17:45	6	89	0.0	2.6	6	89	0.0	1.2	6	89	0.1	3.7
17:45 - 18:00	6	89	0.0	2.6	6	89	0.0	1.2	6	89	0.1	3.7
18:00 - 18:15	6	89	0.0	2.6	6	89	0.0	1.5	6	89	0.1	4.2
18:15 - 18:30	6	89	0.0	2.6	6	89	0.0	1.5	6	89	0.1	4.2
18:30 - 18:45	6	89	0.0	2.6	6	89	0.0	1.5	6	89	0.1	4.2
18:45 - 19:00	6	89	0.0	2.6	6	89	0.0	1.5	6	89	0.1	4.2

**RESIDENTIAL - HOUSES PRIVATELY OWNED**  
**Calculation Factor: 1 HHOLDS**

**WEEKDAY**  
**8 Units**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate
00:00-01:00	3	222	0.0	0	3	222	0.0	0	3	222	0.0	0
01:00-02:00	3	222	0.0	0	3	222	0.0	0	3	222	0.0	0
02:00-03:00	3	222	0.0	0	3	222	0.0	0	3	222	0.0	0
03:00-04:00	3	222	0.0	0	3	222	0.0	0	3	222	0.0	0
04:00-05:00	3	222	0.0	0	3	222	0.0	0	3	222	0.0	0
05:00-06:00	3	222	0.0	0	3	222	0.0	0	3	222	0.0	0
06:00-07:00	3	222	0.0	0	3	222	0.1	1	3	222	0.2	1
07:00-08:00	12	223	0.1	1	12	223	0.3	3	12	223	0.4	3
08:00-09:00	12	223	0.1	1	12	223	0.4	3	12	223	0.5	4
09:00-10:00	12	223	0.1	1	12	223	0.2	2	12	223	0.3	3
10:00-11:00	12	223	0.1	1	12	223	0.2	1	12	223	0.3	2
11:00-12:00	12	223	0.2	1	12	223	0.2	1	12	223	0.3	3
12:00-13:00	12	223	0.2	1	12	223	0.2	1	12	223	0.3	3
13:00-14:00	12	223	0.2	1	12	223	0.2	1	12	223	0.3	3
14:00-15:00	12	223	0.2	1	12	223	0.2	1	12	223	0.3	3
15:00-16:00	12	223	0.2	2	12	223	0.2	2	12	223	0.4	4
16:00-17:00	12	223	0.3	2	12	223	0.2	1	12	223	0.5	4
17:00-18:00	12	223	0.4	3	12	223	0.2	2	12	223	0.6	5
18:00-19:00	12	223	0.3	3	12	223	0.2	2	12	223	0.6	5
19:00-20:00	3	222	0.3	3	3	222	0.3	2	3	222	0.6	5
20:00-21:00	3	222	0.3	2	3	222	0.2	2	3	222	0.5	4
21:00-22:00	3	222	0.2	1	3	222	0.1	1	3	222	0.3	2
22:00-23:00	3	222	0.1	1	3	222	0.1	0	3	222	0.2	2
23:00-24:00	3	222	0.1	0	3	222	0.0	0	3	222	0.1	1
<b>Daily Trip Rates:</b>			<b>3.5</b>	<b>28</b>			<b>3.5</b>	<b>28</b>			<b>7.0</b>	<b>56</b>

Time Range	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated	No.	Ave.	Trip	Estimated
	Days	HHOLDS	Rate	Trip Rate	Days	HHOLDS	Rate	Trip Rate	Days	HHOLDS	Rate	Trip Rate
07:00 - 07:15	12	223	0.0	0.2	12	223	0.1	0.6	12	223	0.1	0.8
07:15 - 07:30	12	223	0.0	0.2	12	223	0.1	0.6	12	223	0.1	0.8
07:30 - 07:45	12	223	0.0	0.2	12	223	0.1	0.6	12	223	0.1	0.8
07:45 - 08:00	12	223	0.0	0.2	12	223	0.1	0.6	12	223	0.1	0.8
08:00 - 08:15	12	223	0.0	0.2	12	223	0.1	0.9	12	223	0.1	1.1
08:15 - 08:30	12	223	0.0	0.2	12	223	0.1	0.9	12	223	0.1	1.1
08:30 - 08:45	12	223	0.0	0.2	12	223	0.1	0.9	12	223	0.1	1.1
08:45 - 09:00	12	223	0.0	0.2	12	223	0.1	0.9	12	223	0.1	1.1
09:00 - 09:15	12	223	0.0	0.3	12	223	0.1	0.4	12	223	0.1	0.7
09:15 - 09:30	12	223	0.0	0.3	12	223	0.1	0.4	12	223	0.1	0.7
09:30 - 09:45	12	223	0.0	0.3	12	223	0.1	0.4	12	223	0.1	0.7
09:45 - 10:00	12	223	0.0	0.3	12	223	0.1	0.4	12	223	0.1	0.7
10:00 - 10:15	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
10:15 - 10:30	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
10:30 - 10:45	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
10:45 - 11:00	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
11:00 - 11:15	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
11:15 - 11:30	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
11:30 - 11:45	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
11:45 - 12:00	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
12:00 - 12:15	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
12:15 - 12:30	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
12:30 - 12:45	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
12:45 - 13:00	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
13:00 - 13:15	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
13:15 - 13:30	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
13:30 - 13:45	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
13:45 - 14:00	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.7
14:00 - 14:15	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
14:15 - 14:30	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
14:30 - 14:45	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
14:45 - 15:00	12	223	0.0	0.3	12	223	0.0	0.3	12	223	0.1	0.6
15:00 - 15:15	12	223	0.1	0.5	12	223	0.0	0.4	12	223	0.1	0.9
15:15 - 15:30	12	223	0.1	0.5	12	223	0.0	0.4	12	223	0.1	0.9
15:30 - 15:45	12	223	0.1	0.5	12	223	0.0	0.4	12	223	0.1	0.9
15:45 - 16:00	12	223	0.1	0.5	12	223	0.0	0.4	12	223	0.1	0.9
16:00 - 16:15	12	223	0.1	0.6	12	223	0.0	0.4	12	223	0.1	0.9
16:15 - 16:30	12	223	0.1	0.6	12	223	0.0	0.4	12	223	0.1	0.9
16:30 - 16:45	12	223	0.1	0.6	12	223	0.0	0.4	12	223	0.1	0.9
16:45 - 17:00	12	223	0.1	0.6	12	223	0.0	0.4	12	223	0.1	0.9
17:00 - 17:15	12	223	0.1	0.8	12	223	0.1	0.4	12	223	0.2	1.2
17:15 - 17:30	12	223	0.1	0.8	12	223	0.1	0.4	12	223	0.2	1.2
17:30 - 17:45	12	223	0.1	0.8	12	223	0.1	0.4	12	223	0.2	1.2
17:45 - 18:00	12	223	0.1	0.8	12	223	0.1	0.4	12	223	0.2	1.2
18:00 - 18:15	12	223	0.1	0.7	12	223	0.1	0.5	12	223	0.1	1.1
18:15 - 18:30	12	223	0.1	0.7	12	223	0.1	0.5	12	223	0.1	1.1
18:30 - 18:45	12	223	0.1	0.7	12	223	0.1	0.5	12	223	0.1	1.1
18:45 - 19:00	12	223	0.1	0.7	12	223	0.1	0.5	12	223	0.1	1.1

**TRIP RATE CALCULATION SELECTION PARAMETERS:**

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

**VEHICLES**Selected regions and areas:

<b>06 WEST MIDLANDS</b>	
WM WEST MIDLANDS	2 days
<b>07 YORKSHIRE &amp; NORTH LINCOLNSHIRE</b>	
NY NORTH YORKSHIRE	1 days
WY WEST YORKSHIRE	1 days
<b>08 NORTH WEST</b>	
GM GREATER MANCHESTER	1 days
MS MERSEYSIDE	1 days

**Main parameter selection:**

Parameter: Number of households  
Range: 24 to 215 (units: )

Date Range: 01/01/98 to 13/11/03

Selected survey days:

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

Selected survey types:

Manual count	6 days
Directional ATC Count	0 days

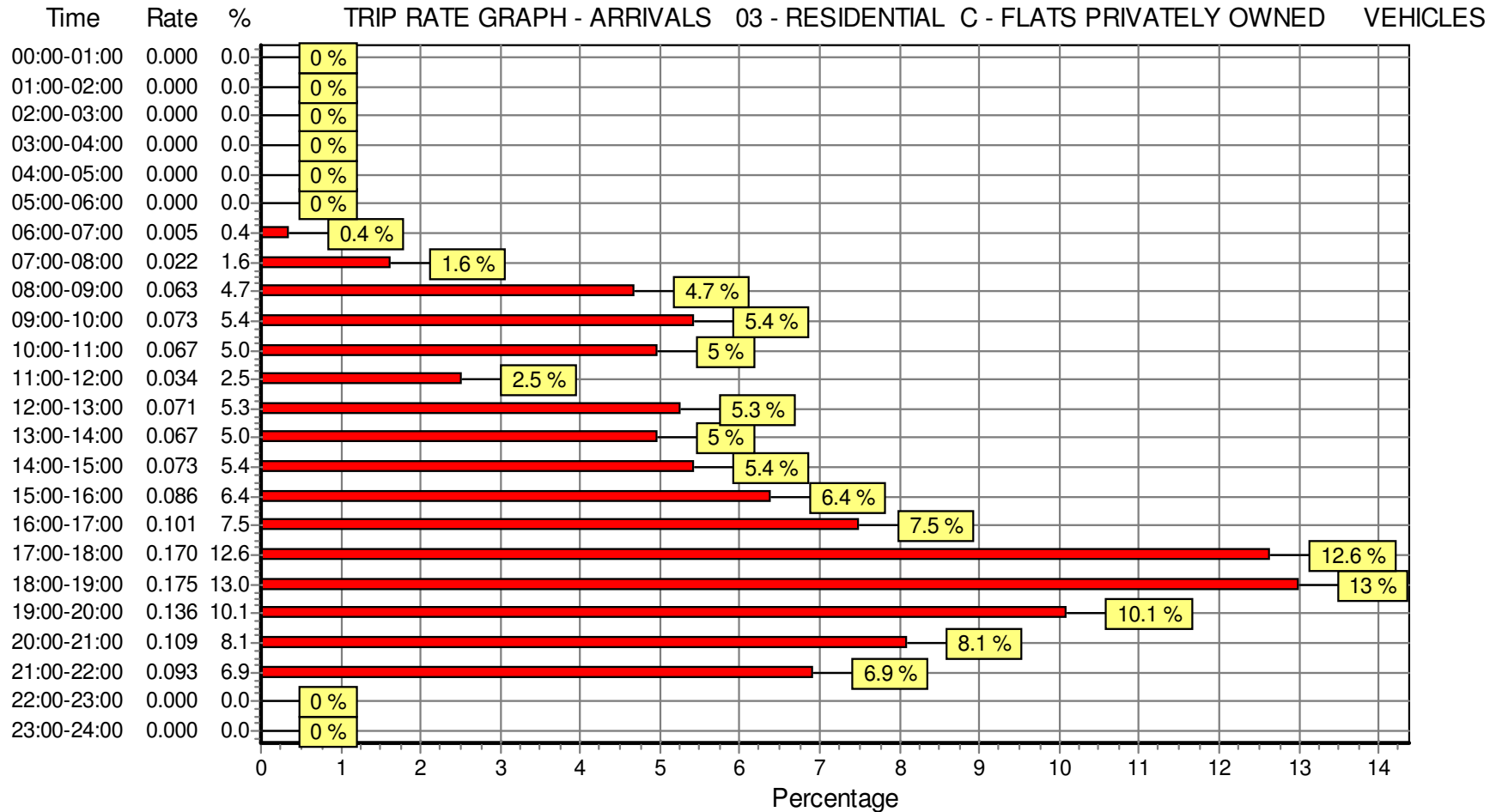
TRIP RATE for Land Use 03 - RESIDENTIAL/C - FLATS PRIVATELY OWNED

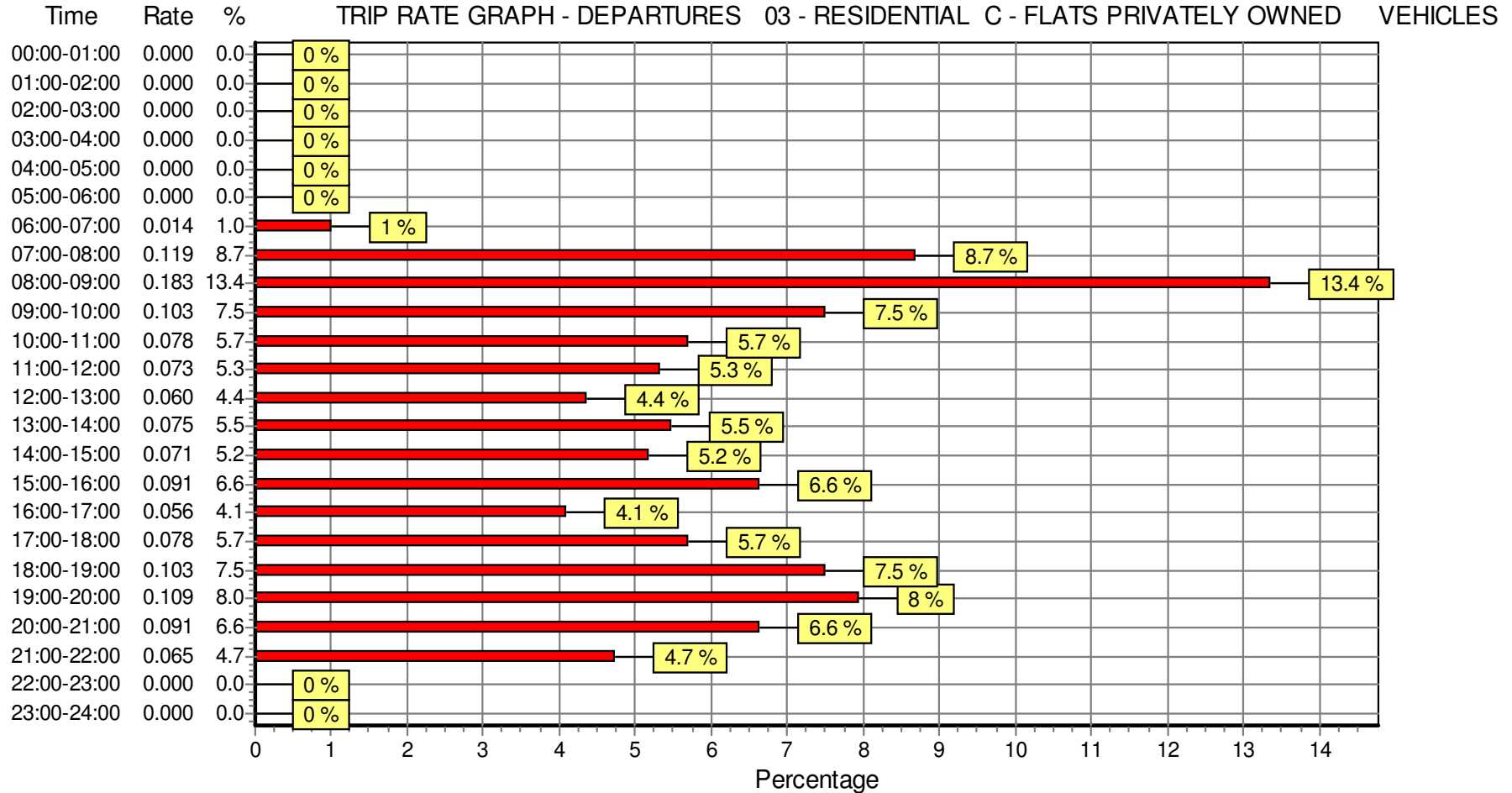
**VEHICLES****Calculation factor: 1 HHOLDS****Estimated TRIP rate value per 139.00 HHOLDS shown in shaded columns****BOLD print indicates peak (busiest) period**

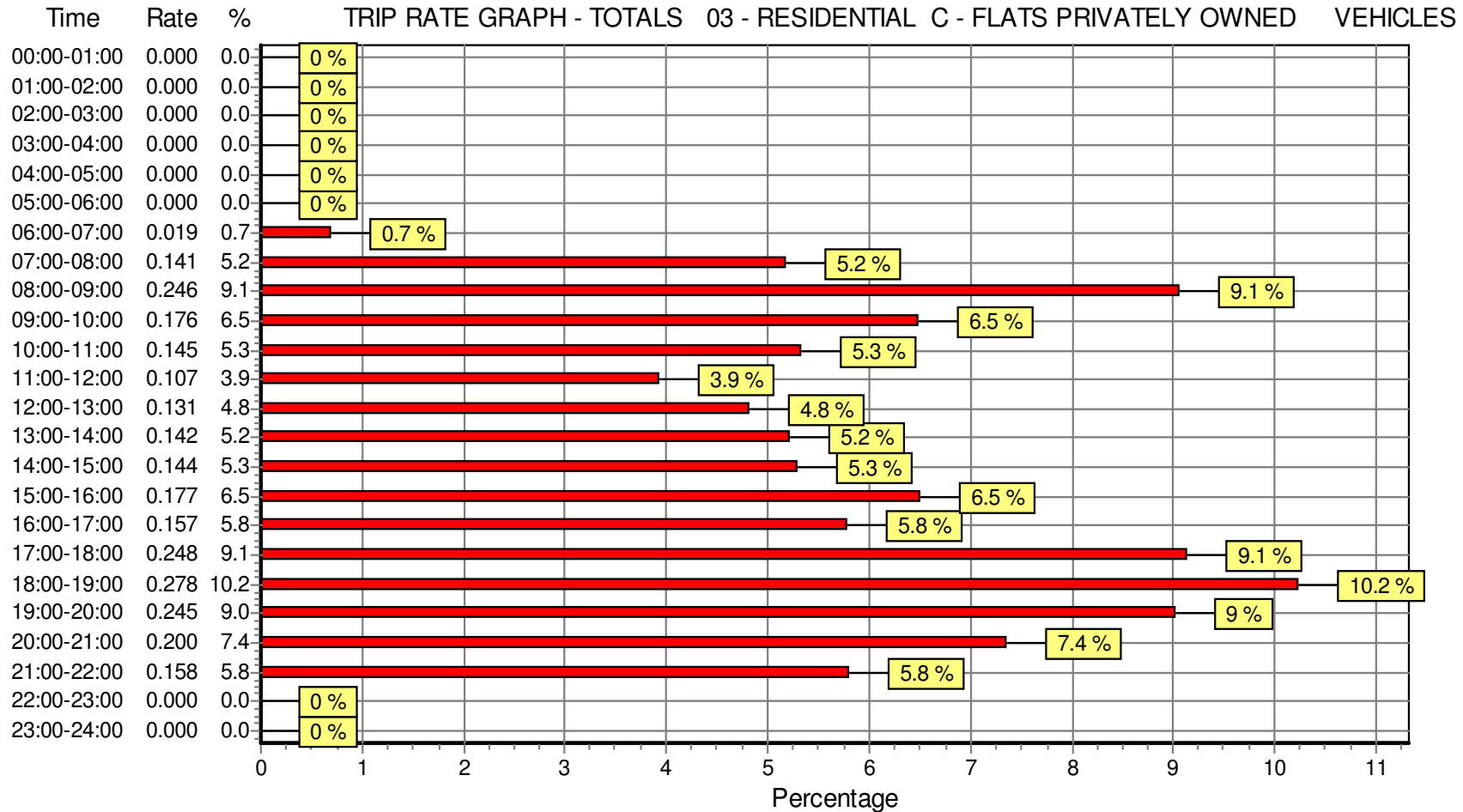
Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate
00:00 - 01:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
01:00 - 02:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
02:00 - 03:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
03:00 - 04:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
04:00 - 05:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
05:00 - 06:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
06:00 - 07:00	1	215	0.005	0.647	1	215	0.014	1.940	1	215	0.019	2.587
07:00 - 08:00	6	89	0.022	3.112	6	89	0.119	16.597	6	89	0.141	19.709
08:00 - 09:00	6	89	0.063	8.817	<b>6</b>	<b>89</b>	<b>0.183</b>	<b>25.414</b>	6	89	0.246	34.231
09:00 - 10:00	6	89	0.073	10.114	6	89	0.103	14.263	6	89	0.176	24.377
10:00 - 11:00	6	89	0.067	9.336	6	89	0.078	10.892	6	89	0.145	20.228
11:00 - 12:00	6	89	0.034	4.668	6	89	0.073	10.114	6	89	0.107	14.782
12:00 - 13:00	6	89	0.071	9.854	6	89	0.060	8.299	6	89	0.131	18.153
13:00 - 14:00	6	89	0.067	9.336	6	89	0.075	10.373	6	89	0.142	19.709
14:00 - 15:00	6	89	0.073	10.114	6	89	0.071	9.854	6	89	0.144	19.968
15:00 - 16:00	6	89	0.086	11.929	6	89	0.091	12.707	6	89	0.177	24.636
16:00 - 17:00	6	89	0.101	14.004	6	89	0.056	7.780	6	89	0.157	21.784
17:00 - 18:00	6	89	0.170	23.599	6	89	0.078	10.892	6	89	0.248	34.491
18:00 - 19:00	<b>6</b>	<b>89</b>	<b>0.175</b>	<b>24.377</b>	6	89	0.103	14.263	<b>6</b>	<b>89</b>	<b>0.278</b>	<b>38.640</b>
19:00 - 20:00	3	88	0.136	18.883	3	88	0.109	15.211	3	88	0.245	34.094
20:00 - 21:00	3	88	0.109	15.211	3	88	0.091	12.589	3	88	0.200	27.800
21:00 - 22:00	1	215	0.093	12.930	1	215	0.065	9.051	1	215	0.158	21.981
22:00 - 23:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
23:00 - 24:00	0	0	0.000	0.000	0	0	0.000	0.000	0	0	0.000	0.000
Daily Trip Rates:			1.345				1.369				2.714	

**Parameter summary**

Trip rate parameter range selected: 24 - 215 (units: )  
 Survey date date range: 01/01/98 - 13/11/03  
 Number of weekdays (Monday-Friday): 6  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Optional parameters used in selection: NO  
 Surveys manually removed from selection: 0







**TRIP RATE CALCULATION SELECTION PARAMETERS:**

Land Use : 03 - RESIDENTIAL  
 Category : A - HOUSES PRIVATELY OWNED

**VEHICLES**Selected regions and areas:

<b>02 SOUTH EAST</b>		
HC HAMPSHIRE		1 days
SC SURREY		1 days
<b>05 EAST MIDLANDS</b>		
NT NOTTINGHAMSHIRE		3 days
<b>06 WEST MIDLANDS</b>		
WO WORCESTERSHIRE		1 days
<b>08 NORTH WEST</b>		
GM GREATER MANCHESTER		4 days
MS MERSEYSIDE		1 days
<b>09 NORTH</b>		
CB CUMBRIA		1 days

**Main parameter selection:**

Parameter: Number of households  
 Range: 20 to 4334 (units: )

Date Range: 01/01/98 to 28/06/06

Selected survey days:

Monday	2 days
Tuesday	3 days
Wednesday	2 days
Thursday	4 days
Friday	1 days

Selected survey types:

Manual count	9 days
Directional ATC Count	3 days

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

**VEHICLES****Calculation factor: 1 HHOLDS****Estimated TRIP rate value per 9.00 HHOLDS shown in shaded columns****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS				DEPARTURES				TOTALS			
	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate	No. Days	Ave. HHOLDS	Trip Rate	Estimated Trip Rate
00:00 - 01:00	3	222	0.027	0.243	3	222	0.020	0.176	3	222	0.047	0.419
01:00 - 02:00	3	222	0.011	0.095	3	222	0.005	0.041	3	222	0.016	0.136
02:00 - 03:00	3	222	0.006	0.054	3	222	0.005	0.041	3	222	0.011	0.095
03:00 - 04:00	3	222	0.000	0.000	3	222	0.000	0.000	3	222	0.000	0.000
04:00 - 05:00	3	222	0.006	0.054	3	222	0.008	0.068	3	222	0.014	0.122
05:00 - 06:00	3	222	0.008	0.068	3	222	0.038	0.338	3	222	0.046	0.406
06:00 - 07:00	3	222	0.045	0.405	3	222	0.116	1.041	3	222	0.161	1.446
07:00 - 08:00	12	223	0.075	0.672	12	223	0.324	2.913	12	223	0.399	3.585
08:00 - 09:00	12	223	0.112	1.011	<b>12</b>	<b>223</b>	<b>0.437</b>	<b>3.931</b>	12	223	0.549	4.942
09:00 - 10:00	12	223	0.144	1.300	12	223	0.203	1.828	12	223	0.347	3.128
10:00 - 11:00	12	223	0.137	1.236	12	223	0.171	1.542	12	223	0.308	2.778
11:00 - 12:00	12	223	0.163	1.471	12	223	0.173	1.555	12	223	0.336	3.026
12:00 - 13:00	12	223	0.174	1.569	12	223	0.160	1.441	12	223	0.334	3.010
13:00 - 14:00	12	223	0.160	1.441	12	223	0.170	1.529	12	223	0.330	2.970
14:00 - 15:00	12	223	0.158	1.424	12	223	0.157	1.411	12	223	0.315	2.835
15:00 - 16:00	12	223	0.248	2.234	12	223	0.197	1.774	12	223	0.445	4.008
16:00 - 17:00	12	223	0.297	2.677	12	223	0.175	1.576	12	223	0.472	4.253
17:00 - 18:00	<b>12</b>	<b>223</b>	<b>0.401</b>	<b>3.611</b>	12	223	0.223	2.006	<b>12</b>	<b>223</b>	<b>0.624</b>	<b>5.617</b>
18:00 - 19:00	12	223	0.344	3.094	12	223	0.230	2.073	12	223	0.574	5.167
19:00 - 20:00	3	222	0.345	3.108	3	222	0.269	2.419	3	222	0.614	5.527
20:00 - 21:00	3	222	0.267	2.405	3	222	0.203	1.824	3	222	0.470	4.229
21:00 - 22:00	3	222	0.164	1.473	3	222	0.108	0.973	3	222	0.272	2.446
22:00 - 23:00	3	222	0.129	1.162	3	222	0.059	0.527	3	222	0.188	1.689
23:00 - 24:00	3	222	0.062	0.554	3	222	0.038	0.338	3	222	0.100	0.892
Daily Trip Rates:			3.483				3.489				6.972	

**Parameter summary**

Trip rate parameter range selected: 20 - 4334 (units: )  
 Survey date date range: 01/01/98 - 28/06/06  
 Number of weekdays (Monday-Friday): 12  
 Number of Saturdays: 0  
 Number of Sundays: 0  
 Optional parameters used in selection: YES  
 Surveys manually removed from selection: 0

