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# Understanding Attitudes

## Research into Kirkwall's Car Culture

Final Report for Orkney Islands Council

In Association With Robert Gordon University

November 2009



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Appendix C: Characteristics and Attitudes of 'Non-Sustainable' Mode Choice

Appendix D: Travel in Similar Communities

Appendix E: Kirkwall Household Survey – questionnaire and covering letter

Appendix F: Household Survey Responses

# Summary

This investigation into car culture in Kirkwall was undertaken to establish the cultural reasons for Kirkwall's residents' attachment to their cars and to provide an understanding of what might be required to produce a behavioural change in Kirkwall, leading to a greater use of sustainable modes. It is anticipated that findings from this research will help to inform and the Sustainable Travel Demonstration Town Project Initiatives and Orkney Islands Councils transport policies and strategies.

Characteristics and attitudes of Kirkwall residents through the analysis of SHS data indicate that, for Kirkwall residents:

- 42% of residents are concerned about traffic growth;
- the majority (92%) have not used the bus in the previous month;
- over two thirds (69%) were less than 6 minutes walk from their nearest bus stop;
- 69% of those with a full driving licence drive everyday;
- only 9% of Kirkwall car commuters claim to have the option of using public transport; and
- of those travelling to work, 62% travelled by car, 2% travelled by bus and 32% by walking or cycling.

The SHS data suggests that approximately a quarter (24%) of trips made by adults from non-car-owning households in Kirkwall are made by car (predominately as passenger). This rises to 74% of trips made by adults from households with one car and to 90% for adults from households with two or more cars available.

In terms of the percentage of households having access to at least one car and the percentage of trips by car and taxi Kirkwall sits largely within the mid range of the towns considered in the study. However the percentage of trips by public transport is generally lower and the percentage of trips involving either walking or cycling are towards the higher end of this range.

Main findings from the household survey are summarised as follows:

- **reasons for using a car in Kirkwall:** high proportions agreed with statements 'car is the quickest mode (82%) and 'other modes are less convenient';
- **problems with using a car in Kirkwall:** high proportions of residents agreed that 'the cost of petrol/diesel is too high (85%) and there are not enough parking spaces in Kirkwall' (62%);
- **attitudes towards car use:** almost half (47%) agree with the statement 'I am actively trying to use my car less';
- **car sharing:** one in ten (11%) of residents currently car share regularly. The most frequently cited measures that would encourage more car sharing included 'guaranteed ride home in an emergency/if let down by other car driver', 'help in finding car sharing partner' (37%) and a 'car sharing scheme organised by their employer';
- **transport initiatives:** the most frequently cited measures that would encourage more sustainable mode choice include:



## Summary

- **walking:** 'more/better pavements' and 'road safety improvements', 'better street lighting' ;
  - **cycling:** 'improved/safer cycle routes', 'secure bike storage facilities at destination' 'cheaper bicycles'; and
  - **public transport** 'more frequent services', 'more routes', 'more conveniently located bus stops'.
- **impact of car use in Kirkwall:** high proportions of residents agreed that 'car use contributes to global warming/climate change' (63%) and 'car use adds to traffic noise' (57%).

It is recommended that the following 'Smarter Choices' methods would be the most effective to apply in the urban area. These include a range of measures such as:

- More effective workplace-based travel plans;
- This provides the opportunity to revitalise and market the Council's own travel plan to be seen to be taking a lead in the project. In addition the existing travel plans should be revitalised and effective processes put in place to ensure they are active and are promoting modal choice. They should be reviewed regularly and the council could set up effective monitoring and management processes to ensure their effectiveness. Guidelines, policies and incentives could also be created by the project to ensure future travel plans are implemented effectively.*
- personalised travel planning;
- The core residential population of urban area provides a great opportunity for a personalised travel planning project focussing on the promotion of walking, cycling and car sharing for particularly short interurban trips. This would need to be supported by some basic pedestrian and cycle infrastructure in this area.*
- travel awareness campaigns;
- Travel awareness campaigns should also be implemented to support these interventions. They are more likely to succeed if they predispose people's perceptions of what is an acceptable walking distance within Kirkwall.*

Additional activities could include teleworking, online shopping and car sharing schemes designed to reduce overall levels of car use. In addition, improved walking infrastructure combined with marketing would encourage walking, instead of car use, for short trips in Kirkwall town.

A sustainable transport future for Kirkwall requires that the car culture be challenged. Changes to the road environment will not, of themselves succeed without a radical change in public attitudes. Effective and creative public engagement can be regarded as critical to changing local travel behavior



# 1 Introduction

## 1.1 Background

1.1.1 This investigation into car culture in Kirkwall was undertaken to establish the cultural reasons for Kirkwall's residents' attachment to their cars and to provide an understanding of what might be required to produce a behavioural change in Kirkwall, leading to a greater use of sustainable modes. It was anticipated that such a study should help shape the Smarter Choices, Smarter Places project in Kirkwall and will dovetail with work that has been undertaken at a national level.

1.1.2 The car culture research programme included the following topics:

- a review of travel and transport patterns and opportunities in and around Kirkwall. (the three inter-related topics of household car ownership, overall car use and 'unnecessary' car use are considered separately);
- a review of travel and transport in other similar communities;
- a survey of Kirkwall residents to establish travel behaviour and reasons behind choices made;
- qualitative work to obtain in-depth material associated with car culture in Kirkwall;
- developing a database for monitoring active and sustainable travel; and
- developing recommendations for behavioural change.

## 1.2 Structure of this Report

1.2.1 This short introduction is followed by a further seven chapters, as follows:

- Chapter 2 - Review of Kirkwall Travel and Transport Patterns and Opportunities;
- Chapter 3 - Review of Travel in Similar Communities;
- Chapter 4 - Kirkwall Car Culture - Household Survey;
- Chapter 5 - Qualitative Research; and
- Chapter 6 - Summary and Conclusions.

1.2.2 Additional relevant material is provided in a number of Appendices, as follows:

- Appendix A: Characteristics and Attitudes of Kirkwall Residents (Analysis of Scottish Household Survey data);
- Appendix B: Postcode Boundaries;
- Appendix C: Characteristics and Attitudes of 'Non-Sustainable' Mode Choice;
- Appendix D: Travel in Similar Communities;
- Appendix E: Kirkwall Household Survey – Questionnaire;
- Appendix F: Household Survey Responses.

## 2 Review of Kirkwall Travel Patterns and Opportunities

2.1.1 This Chapter reviews the travel and transport patterns and opportunities in and around Kirkwall, considering separately the three inter-related topics of household car ownership, overall car use and 'unnecessary' car use. The remainder of this Chapter is separated into eight sections. These are:

- review of previous/ongoing work;
- geographic scope;
- data sources;
- car availability;
- characteristics and attitudes of Kirkwall residents (analysis of car use, travel-to-work etc);
- car use and journey purpose (analysis of Scottish Household Survey Travel Diary data and Census 2001 travel-to-work);
- 'unnecessary' car use; and
- a summary of Kirkwall travel patterns and opportunities.

### 2.2 Review of Previous/Ongoing Work

#### Kirkwall's Sustainable Travel Demonstration Town Project

2.2.1 Kirkwall is one of seven towns in Scotland to receive funding from the Scottish Government towards becoming a 'Sustainable Travel Demonstration Town' as part of the Smarter Choices, Smarter Places initiative. The three year funding programme will go towards a package of measures, which are aimed at increasing the use of public transport and encouraging people to walk and cycle more around the town. In addition to the current 'Car Culture' research, Kirkwall's Sustainable Travel Demonstration Town Project Initiatives includes the following:

- **Town Infrastructure – missing links:** These infrastructure schemes aim to complete an active travel network across the town linking the core trip attractors and main housing areas;
- **Quoybanks active travel cohesiveness:** This scheme involves residential infrastructure improvement works in the Quoybanks area of Kirkwall and includes new kerbs and footways and the creation of a 20mph zone, with associated traffic calming measures;
- **Planning for Sustainable Housing:** The sustainable travel agenda will be integrated into the planning for housing process to encourage sustainable access as the primary means of travel. When planning new housing development, proximity and access by foot to primary schools, the public transport network and the wider town services and amenities will be a foremost consideration;

- **Sustainable New Schools Planning:** This scheme would ensure that the new site for the Kirkwall Grammar School will be a flagship development in terms of access for sustainable modes;
- **Promoting Smarter Travel Choices in Kirkwall:** A promotional strategy including travel maps and personalised travel planning (PTP) will be launched in partnership with the NHS and the Energy Advice Centre;
- **GP Active Referral;** Working closely with the NHS, this scheme sees the development of an active referral scheme so that GPs refer patients to active travel opportunities to encourage and assist patients in incorporating exercise into daily living;
- **Community Pharmacy;** Community Pharmacy to provide consultations to help people in the community take small steps to achieve a healthier lifestyle;
- **Children and Young People Scheme;** Recognising that Kirkwall's school children already take part in cycle training through their school travel plans, this scheme would allow for the wider roll-out of the Scottish Cycle Training Scheme for young people who have perhaps missed the opportunity in school or would like a refresher course, or more practise with a trained trainer, and for older people perhaps wanting to return to cycling;
- **Road Works for Sustainable Modes Framework:** This element will see the development of a policy and procedure to ensure that all proposed traffic works are audited to ensure access for pedestrians, cyclists, pushchairs and wheelchairs users in addition to cars;
- **SCSP Bus Measures:** For, example, a dedicated bus service between Kirkwall town centre and the airport which meets and connects with all flights would provide a sustainable alternative to passengers;
- **Wayfinding Strategy:** In conjunction with Orkney Tourism Group and Orkney Ferries, a wayfinding strategy will be developed and delivered, to provide a comprehensive mapping and signing network throughout the town;
- **A Path to Health:** A Path to Health walk will offer residents of Kirkwall a designated, attractive walk in the town. The scheme will incorporate a group walk led by a trained leader and developing a health walk programme within the workplace;
- **KIST (Kirkwall Independent Sustainable Travel):** KIST will support and aim to encourage all to use public transport, walking and cycling in and around Kirkwall. Tools include the Website; Bus Buddies; Travel Training and Awareness Raising Workshops;
- **Young People:** Work with Aurrida House who provide for special needs children and the three Kirkwall schools, to develop a practical support programme; and
- **Older People and Visitors to Kirkwall:** In association with the Orkney Disability Forum, developing and supporting a bus buddy scheme for older people and people who are disabled, together with visitors with disabilities.

### 2.3 Staff Travel Surveys

2.3.1 Orkney Islands Council staff travel survey indicated the following key findings:

## 2 Review of Kirkwall Travel Patterns and Opportunities

- over three quarters (77%) travelled by car (57% as a lone driver) 18% walked; 2% cycled, 1% travelled by bus and 1% by ferry;
  - most (72%) arrive at the council offices between 08:30 and 09:00 and 67% leave their place of work between 17:00 and 17:30;
  - almost half (49%) live within 2 miles of their work;
  - the most frequently cited reasons for travelling by car included 'convenience/flexibility', 'quickest means' and 'need a car for business trips'.
  - Over a quarter (26%) car share on their journey to work (either with someone from the council or someone from another organisation). Of those who did not currently car share, half (52%) would be prepared to in the future.
- 2.3.2 An analysis of the NHS Orkney staff survey was undertaken to determine the percentages travel by each mode. Three quarters drove to work (66% drove alone), 15% walked; 4% cycled; 3% travelled as a car passenger and only 1% travelled by bus.

### 2.4 Travel Plans

2.4.1 A number of Travel Plans exist within the Kirkwall Area. These include the following:

- School Travel Plans and Orkney College Travel Plan; and
- Employer Travel Plans
  - Orkney Islands Council;
  - Royal Society of Protection of Birds (RSPB);
  - Highlands and Islands Enterprise;
  - Kirkwall Airport; and
  - NHS Orkney.

2.4.2 With the guidance and support of the Orkney Islands Council School Travel Co-ordinator, all schools in Orkney are encouraged to prepare a School Travel Plan to develop, promote and support more sustainable transport options throughout the area. The School Travel Plans have the aim of reducing the number of car trips made to schools by parents and staff, improving conditions and safety on the journey to school, and reducing road casualties.

### 2.5 Policy Background

#### Highlands and Islands Regional Transport Partnership (HITRANS)

- 2.5.1 HITRANS is one of seven Regional Transport Partnerships in Scotland and is a statutory body formed in 2005 as a result of the Transport Scotland Act 2005. Each partnership must prepare a transport strategy for the region which will enhance economic well being, promote safety, social inclusion and equal opportunity. The partnership must plan for a sustainable transport in the region and link with other partnerships in Scotland.
- 2.5.2 HITRANS' Regional Transport Strategy (RTS) was finalised in March 2007, and whilst the overall objective for the strategy is to improve the interconnectivity of the whole region to

## 2 Review of Kirkwall Travel Patterns and Opportunities

strategic services and destinations (this is in respect to economic over-riding objectives) the supporting objectives are highly relevant to reducing car dependency:

- to enable people to participate in everyday life;
- to improve safety and security of travel;
- to improve people's health;
- to manage impacts on our environmental assets.

2.5.3 The policies and proposed interventions which have a bearing on reducing car travel within the HITRANS strategy are as follows:

- active travel audits on all service centres across the region;
- audits of active travel infrastructure in the HITRANS area;
- development of a travel behaviour change programme; and
- bespoke travel plan elements and support.

2.5.4 HITRANS coordinate Active Travel Regional Audits of settlements, identifying existing facilities for walking and cycling, the constraints that are present to active travel within the local transport network, and recommending enhancements that could be introduced, both in terms of improved infrastructure and soft measures such as information and publicity, signage, maps and other promotional material that will encourage mode transfer from cars and greater use of existing facilities.

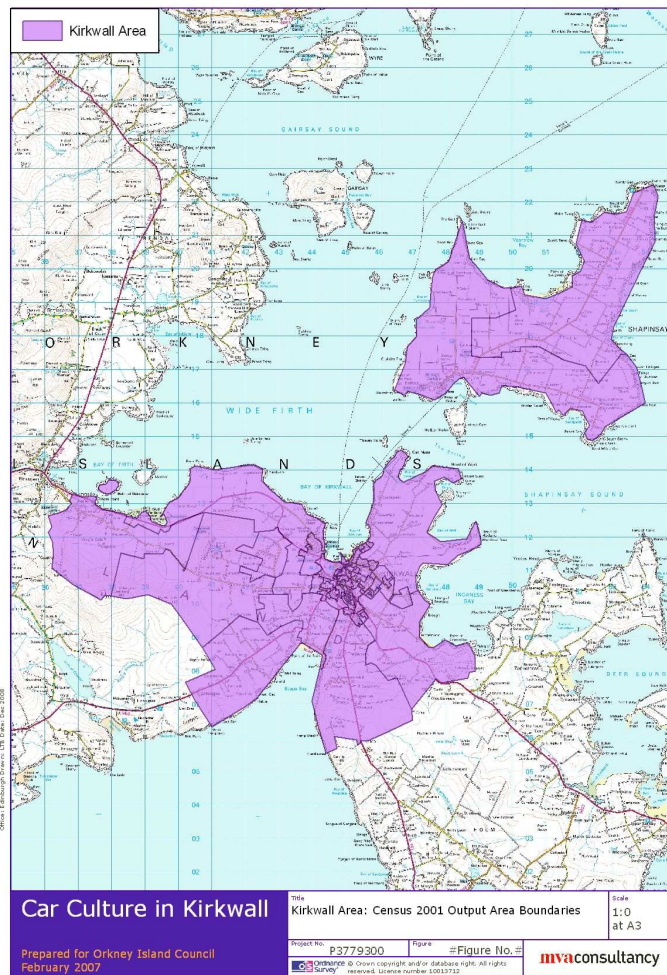
### Orkney Islands Council Local Transport Strategy

2.5.5 Orkney Islands Council (OIC) approved their Local Transport Strategy (LTS) in March 2007. and the LTS states how OIC intends to deliver on national transport objectives at a local level and presents an action plan for meeting local challenges and objectives. The key objectives in the LTS integrate well with aspirations to reduce car use. These include:

- ensuring travel opportunities meet the needs of the whole community;
- integrate various means of travel around Orkney;
- promote accessibility for all;
- increase levels of active travel;
- make travel safer; and
- reducing traffic in sensitive areas.

## 2.6 Geographic Scope of this Study

2.6.1 The main geographic scope of this study is the Kirkwall area, as illustrated in Figure 2.1. This covers all of postcode area 'KW15' and Shapinsay. Shapinsay was included as it was defined as part of the study area during the 'Sustainable Travel Demonstration Town' bid.



**Figure 2.1 Boundary of the Kirkwall Area**

**Data Sources**

- 2.6.2 Relevant data sets used throughout this research include the Scottish Household Survey (Household, Random Adult and Travel Diary) and the 2001 Census data (particularly the Mode-of-Travel-to-Work data).
- 2.6.3 The Scottish Household Survey (SHS) is a continuous cross-sectional survey which commenced in February 1999 to provide the Scottish Government and other interested parties, with information on the impact on household and individuals of key services and policies. Each complete sample of approximately 30,000 Scottish households is gathered over the course of two years. The resulting data set (1999 to 2006) includes survey data gathered from around a thousand households in the Kirkwall area.
- 2.6.4 One householder from the selected household is interviewed face-to-face about themselves and other members of the household. In addition, a randomly selected adult (ie aged 16 or over) member of the same household is interviewed on other topics. As well as questions about transport patterns and choices, the SHS contains a Travel Diary section, in which respondents report on aspects of their previous days' travel.



**2.7 Car Availability**

2.7.1 The first thread in understanding car mode-choice (and influencing future mode shift) is understanding car ownership and availability. The following four types of households in the SHS Travel Diary data are considered separately:

- **C0** - households with no car (or van) available for use;
- **C1\_1** - households with one car/van available for the use of a single adult (with or without children);
- **C1\_2** - households with one car/van available for the use of two or more adults (with or without children); and
- **C2+** - households with 2 or more cars/available for private use.

2.7.2 Table 2.1 illustrates mode choice proportions from trips made by SHS randomly chosen adults living within Kirkwall, disaggregated by these four household car ownership categories.

**Table 2.1 Main Mode Proportions by Household Car Ownership for KW15**

Main Mode (all SHS trips)	No Car	1 Car & 1 Adult	1 Car & 2+ Adults	2+ Cars
Car Driver	8%	73%	58%	77%
Car Passenger	16%	5%	16%	13%
Taxi	6%	0%	1%	1%
<b>All Car-based Modes</b>	<b>30%</b>	<b>77%</b>	<b>75%</b>	<b>91%</b>
Walking or cycling	62%	20%	24%	8%
Public Transport	3%	0%	1%	0%
Other	5%	2%	1%	1%
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Source: Travel Diary data (1999 to 2006): Trips made by KW15 residents N=2,233

2.7.3 Despite not owning their own car, 8% of trips made by adults living in non-car-owning households are made as a car driver, with a further 6% generating a taxi trip. It is not clear what proportion of the other 16% of trips this group make as car passengers generate a car vehicle trip and which join an existing car trip. A total of **30%** of all adult trips from these non-car-owning Kirkwall households currently use car-based modes.

2.7.4 The availability of a single car within a household increases the use of car-based modes up to **75%** for households with more than one adult ('car competition' households) and to **77%** in single-adult households. The main difference between these two categories is the proportion of trips made as car driver (58% in car-competition households, versus 73% in when there is no competition for the single car).

## 2 Review of Kirkwall Travel Patterns and Opportunities

- 2.7.5 A further significant drop in 'sustainability' occurs with the availability of a second car in the household, with car-based modes accounting for around **91%** of all adult trips in these households, with 77% of all trips being made as a car driver. It could be either the availability of the car/extra car that drives the behaviour or the lifestyle patterns that drive the households need for extra cars.

### Car Availability (Census 2001)

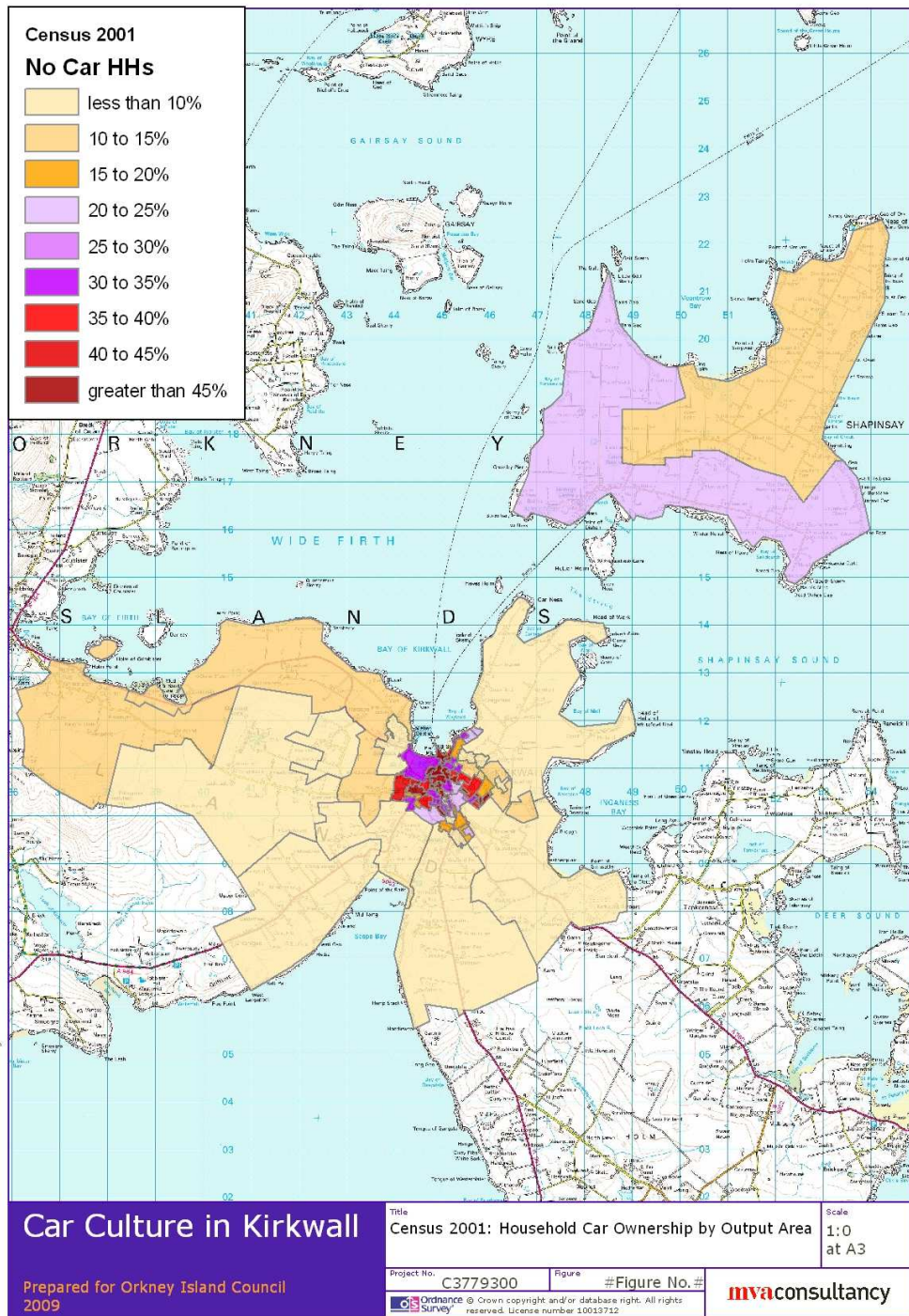
- 2.7.6 The 2001 Census has been used to report the proportion of households which do not own a car. In 2001, 29% of Kirkwall households did not have access to a car/van, while 22% had access to two or more cars/vans. (See Table 2.2).

**Table 2.2 Car Availability in the Kirkwall Area(Census 2001)**

Car Availability	Kirkwall Area
No Car	29%
One Car	49%
Two or More Cars	22%
<b>Total</b>	<b>100%</b>

Source Census 2001: Kirkwall Area: Output Areas N=3,503 households

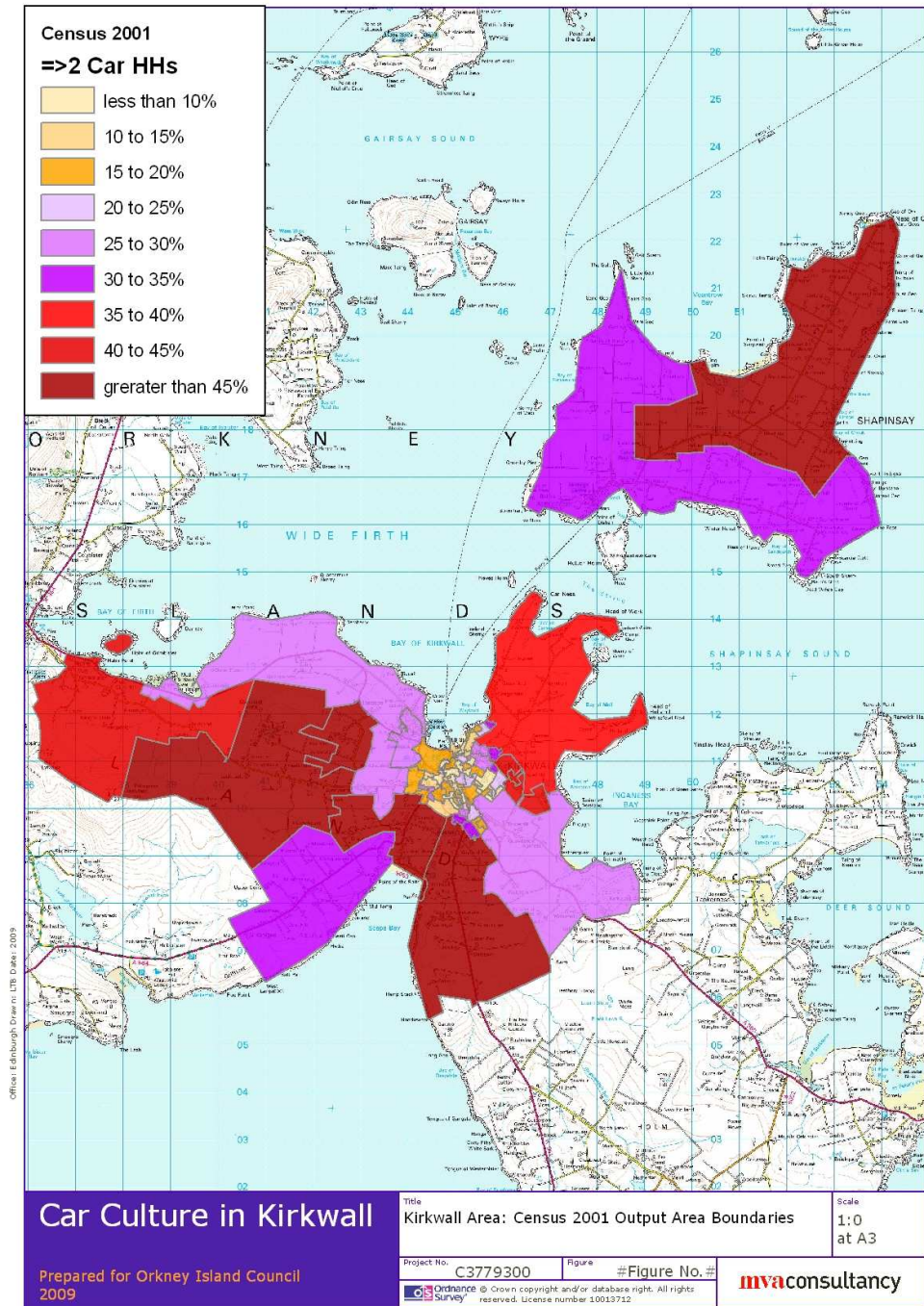
- 2.7.7 Figure 2.2 illustrates the distribution of 'non car-available' households for the Kirkwall area.
- 2.7.8 In addition to some local variations in car availability, the view of the Kirkwall area as a whole shows how the proportion of non-car-owning households decreases with increasing distance from Kirkwall's town centre.



**Figure 2.2 Kirkwall Area: Households with No Car Available (Census 2001)**

**Multi-Car Owning Behaviour (Census 2001)**

2.7.9 Figure 2.3 illustrates the distribution of households with two or more cars available for the Kirkwall area. The view of the whole Kirkwall area shows how multi-car owning behaviour increases significantly in Kirkwall’s rural hinterland.



**Figure 2.3 Kirkwall Area: proportion of household with two (or more) cars available (Census 2001)**

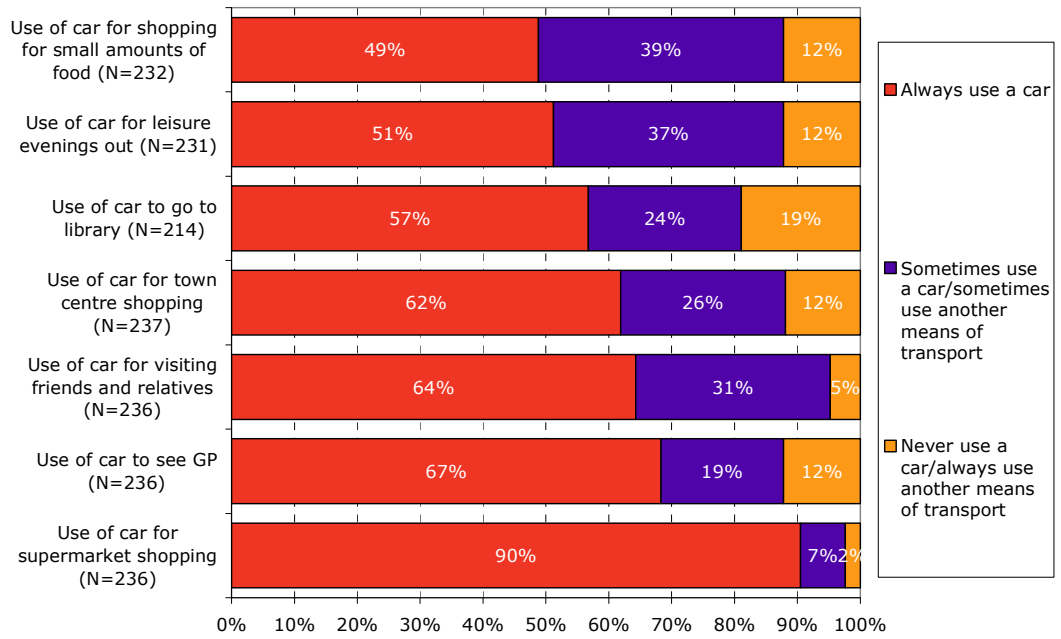


### 2.8 Characteristics and Attitudes of Kirkwall Residents (SHS Analysis)

- 2.8.1 This section considers characteristics and attitudes of Kirkwall residents through the analysis of SHS data associated with car travel, public transport and cycling.
- 2.8.2 Additional relevant material is provided in Appendix A, which contains information on sample sizes and analyses supporting the findings in this section. It should be noted that our analysis of SHS data includes data from households within postcode KW15 (see Appendix B for details).

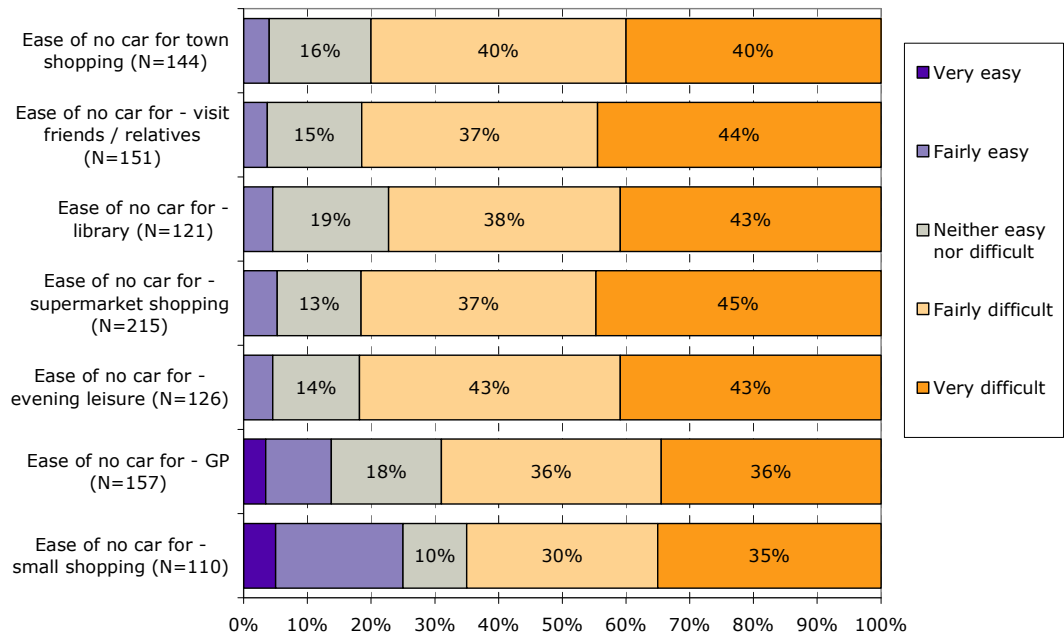
#### Car Travel

- 2.8.3 The SHS interviewer asks about the type (if any) of driving licence that the randomly chosen adult holds, and then asks those who hold a full drivers licence how often they drive:
- **Drivers licence:** Almost three quarters (**73%**) of Kirkwall residents (aged 17+) have a full drivers licence;
  - **Frequency of driving:** Of Kirkwall residents with a full driving licence, **69%** said they drove everyday. A further 14% said they drove at least three times a week (but not everyday), 8% said they drove once or twice a week and smaller percentages drove less often or never;
  - **Frequency of driving in congested traffic:** the interviewer asks people who said they drove at least once per week how often they drove in congested traffic. For Kirkwall residents, 8% drove in congested traffic at least once a week, 50% said they did so less than once a month (but more than once a week) and 43% reported never driving in congested traffic;
  - **Vehicle occupancy:** 60% (N=1,230: base all car driver trips) of Kirkwall residents' car trips were single occupancy (ie only driver), 27% had one passenger and 13% had more than one passenger.
  - **Public transport availability:** Car commuters were asked 'would it be possible for you to use public transport for the journey to or from work?'. SHS (1999 to 2006) indicates that **9%** of Kirkwall car commuters claim to have the option of using public transport.
- 2.8.4 The randomly-chosen adult member of the household is asked about car use for various types of services (such as shopping, doctors surgery etc). Figure 2.4 shows that the majority of Kirkwall residents always use the car for supermarket shopping (90%). Fewer respondents always use the car for small amounts of food shopping (49%) or leisure evenings out (51%).



**Figure 2.4 Use of car and journey purpose (SHS 1999 to 2006: Kirkwall KW15 Residents)**

2.8.5 The randomly-chosen adult member of the household is asked how easy it would be to not use the car for accessing various types of services (such as shopping, doctors surgery etc). Figure 2.5 shows that a quarter (25%) of Kirkwall residents would find it easy to not use the car for 'small shopping'. Fewer respondents would find it easy to not use the car for 'town shopping' (4%) and 'visiting friends and relatives' (4%).



### Figure 2.5 Ease of no car and journey purpose (SHS 1999 to 2006: Kirkwall KW15 Residents)

- 2.8.6 The interviewer asks the randomly chosen adults how concerned they would say they were by the increase in the amount of traffic on Scotland's roads. Ten percent of Kirkwall residents said they were 'very concerned' and 32% were 'quite concerned', 27% 'not very concerned' and 32% 'not concerned at all'. Those that indicated concern were asked 'what is it that concerns you about traffic growth in Scotland?'. Participants could provide more than one reason. Kirkwall residents most frequently cited concerns were 'busier roads/streets (55% N=90), 'air pollution' 47%, 'congestion/increased travel times' (33%) 'more accidents' (30%), 'health problems' (e.g. respiratory illness) (24%) and 'parking problems' (22%).

#### Public Transport

The SHS interviewer asks the householder about bus service accessibility and frequency; the convenience of public transport and frequency of use of local buses:

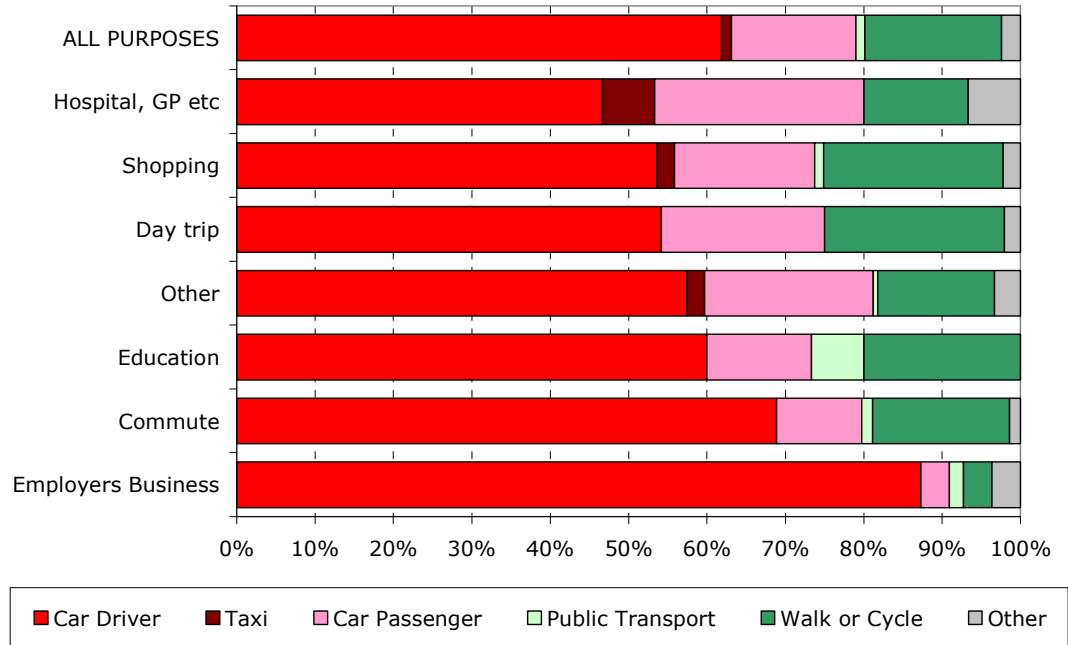
- **Walking time to the nearest bus stop:** The SHS interviewer asked the householder how long it would take the interviewer to walk to the nearest bus stop (or place where one could get a bus). Over two thirds (69%) of Kirkwall households claimed they were less than 6 minutes walk from the nearest bus stop and 17% reported a 7 to 13 minutes walk from a stop. 7% of households were 14-26 minutes walk from a stop and only 2% said the interviewer would have to walk 27 minutes or longer. **6%** said that there was no bus service available;
- **Frequency of bus services at nearest stop:** Overall, 28% of householders said that there was at least one bus every hour, 47% said at least one bus every two hours. The remaining 24% reported a less frequent service or no service.
- **Use of local bus service:** The majority of Kirkwall residents (**92%**) have not used the bus service in the previous month;
- **Reasons for not using buses more frequently:** Respondents who used a bus less than once a week were asked what was the main reason for not using the bus more often than they do. The most frequently cited responses were 'no need' (12% N=194), 'use my own car (6%), 'lack of service (5%) and 'no direct route (3%).
- **Views on convenience of public transport:** Half (50%) of Kirkwall residents rated the services as convenient (either 'very convenient' or 'fairly convenient') and 28% rated public transport as inconvenient (either 'very inconvenient' or 'fairly inconvenient'). The remainder offered 'no opinion' (12%) or viewed public transport as neither inconvenient nor convenient (10%).

#### Cycling

- 2.8.7 The interviewer asks the Highest Income Householder (or his/her spouse/partner) whether the household has any bicycles which can be used by adults. Almost half (45%) of Kirkwall households had one or more bicycles available for use by an adult.

**2.9 Car Use and Journey Purpose**

2.9.1 Figure 2.6 details mode choice for various purposes. Analysis includes the set of trips that begin and/or end within Kirkwall. It may be seen that the journey purposes with the highest percentage of 'car driving' are 'employers business' (87%) and 'commute' (69%).

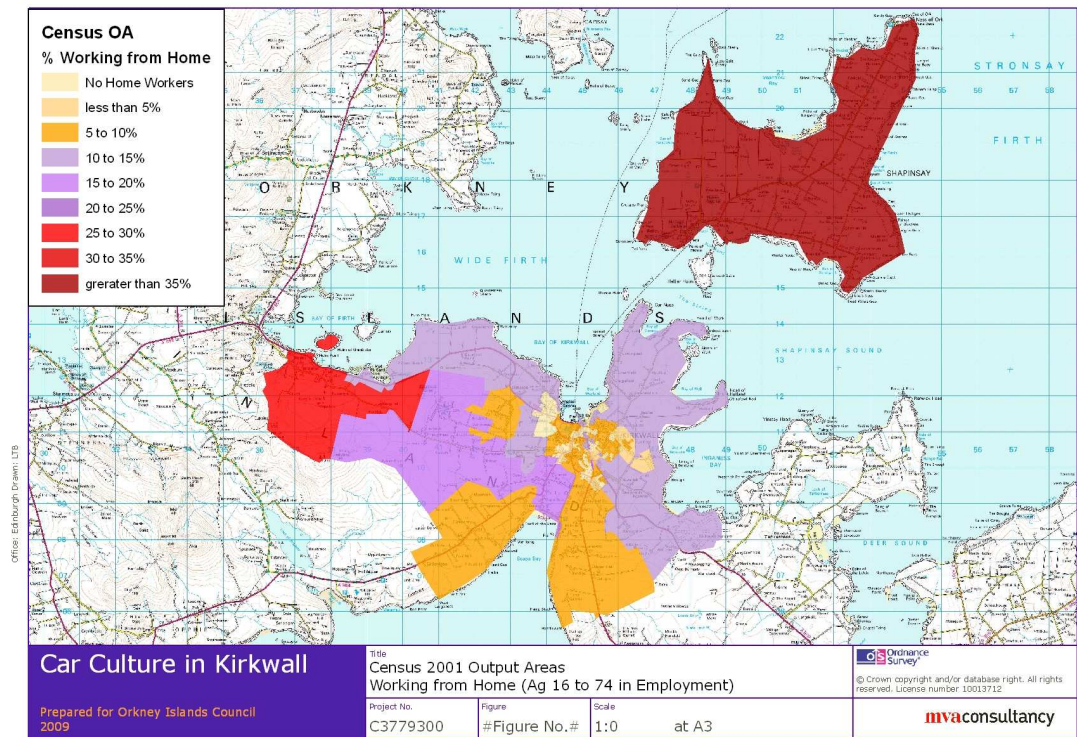


**Figure 2.6 Mode and Journey Purpose (SHS Travel Diary 1999 to 2006)**

**Travel-to-Work (Census 2001)**

2.9.2 An analysis of Census (2001) Travel-to-work data was undertaken to determine the percentage of the population who work mainly from home. In total, 7% of Kirkwall residents (age 16 to 74 in employment) work from home. Figure 2.7 shows that the highest proportions of home workers live in Kirkwall’s rural hinterland, presumably due in part to the high proportion of farming households in these areas.





**Figure 2.7 Home Working (Census 2001)**

2.9.3 2001 Census definitions of commuting are described below:

- **Out-commuter:** a person travelling out of their geographic area of residence to their place of work; and
- **In-commuter:** a person travelling into a geographic area to their place of work from their geographic area of residence.

2.9.4 An analysis of Census data (2001) was undertaken to determine the percentages travel by mode for the journey to work in the Kirkwall Area. Of those travelling to work, 62% of out-commuters travelled by car, 2% travelled by bus and 32% by walking or cycling (see Table 2.3).

**Table 2.3 Kirkwall Area: Out-Commuters Mode Share**

Mode	N*	Percentage
Car Driver (and Taxi)	1,866	54%
Car Passenger	301	9%
Walking	972	28%
Cycle	147	4%
Bus	66	2%
Other	127	4%
<b>Total</b>	<b>3,479</b>	<b>100%</b>

Census 2001: Kirkwall Output Areas: Working Age Population 16 to 74

- 2.9.5 Figure 2.8 and Figure 2.9 details out-commuting car mode share by Output Area for the whole of Kirkwall area and Kirkwall town, respectively. The highest percentages by car mode share are from those based outside Kirkwall town (70%+ car, shaded red in Figure 2.8). Lower percentages of car commuting were found for those living in the Kirkwall town centre (less than 70% car - shaded purple and yellow).
- 2.9.6 Figure 2.10 details in-commuting mode share by Scottish Neighbourhood Statistics Datazones. Commuters working in the outskirts of Kirkwall have high car mode-share (greater than 70% car – shaded purple in Figure). Lower percentages of car commuting are associated with those working in Kirkwall town centre (less than 70% car - shaded orange in Figure 2.10).

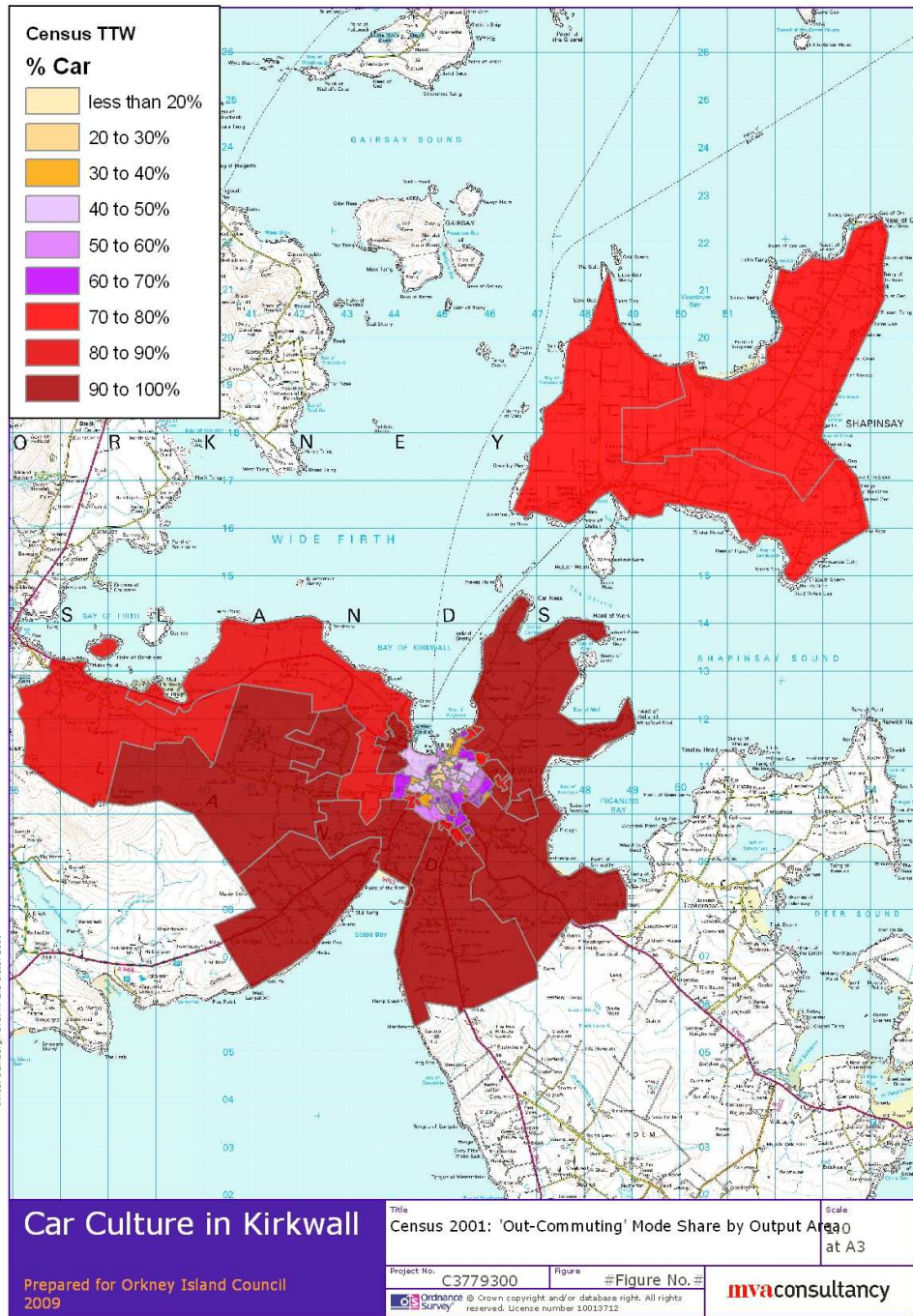


Figure 2.8 Kirkwall Area: Out-Commuting Mode Share



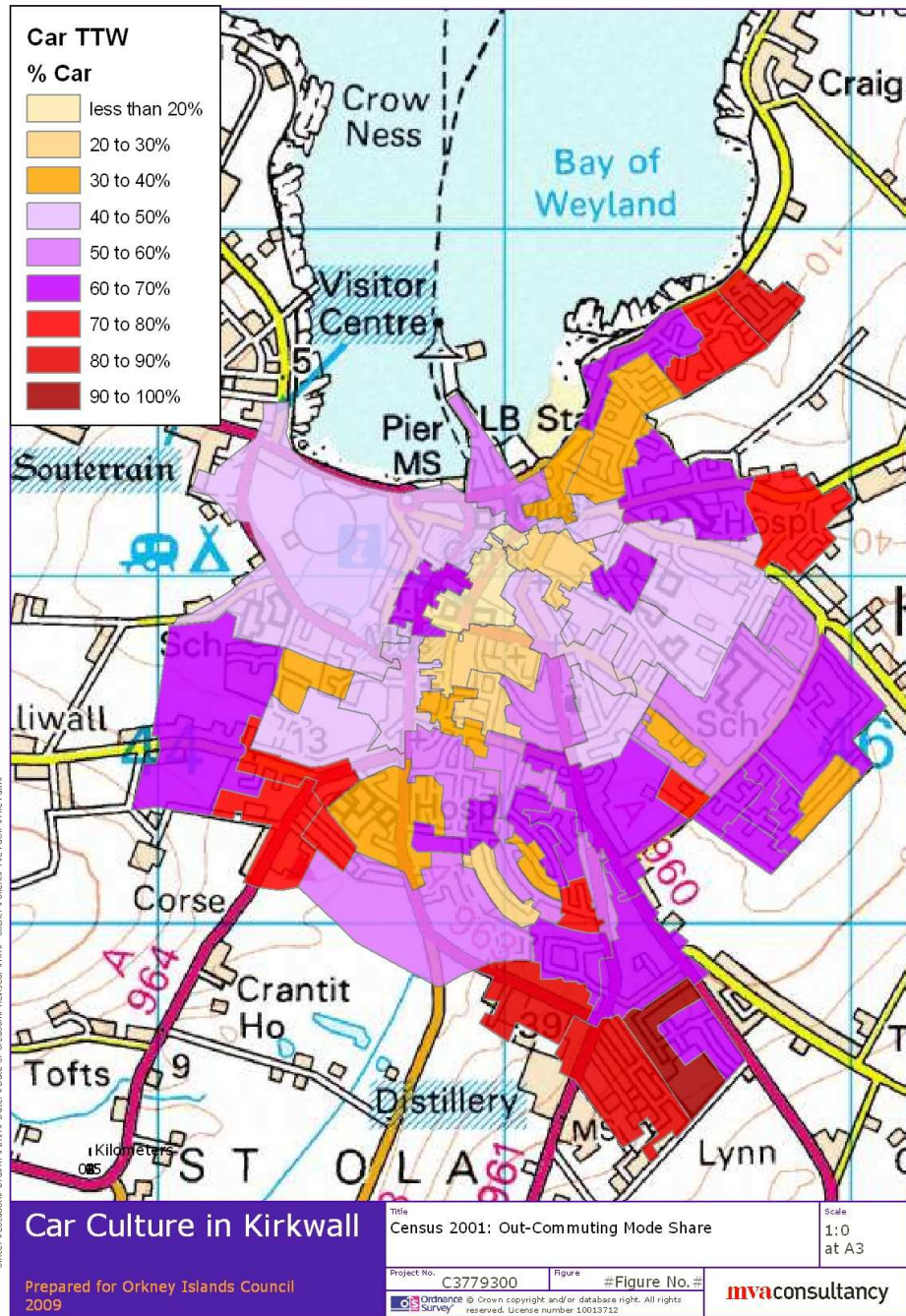


Figure 2.9 Kirkwall Settlement: Out-Commuting Mode Share

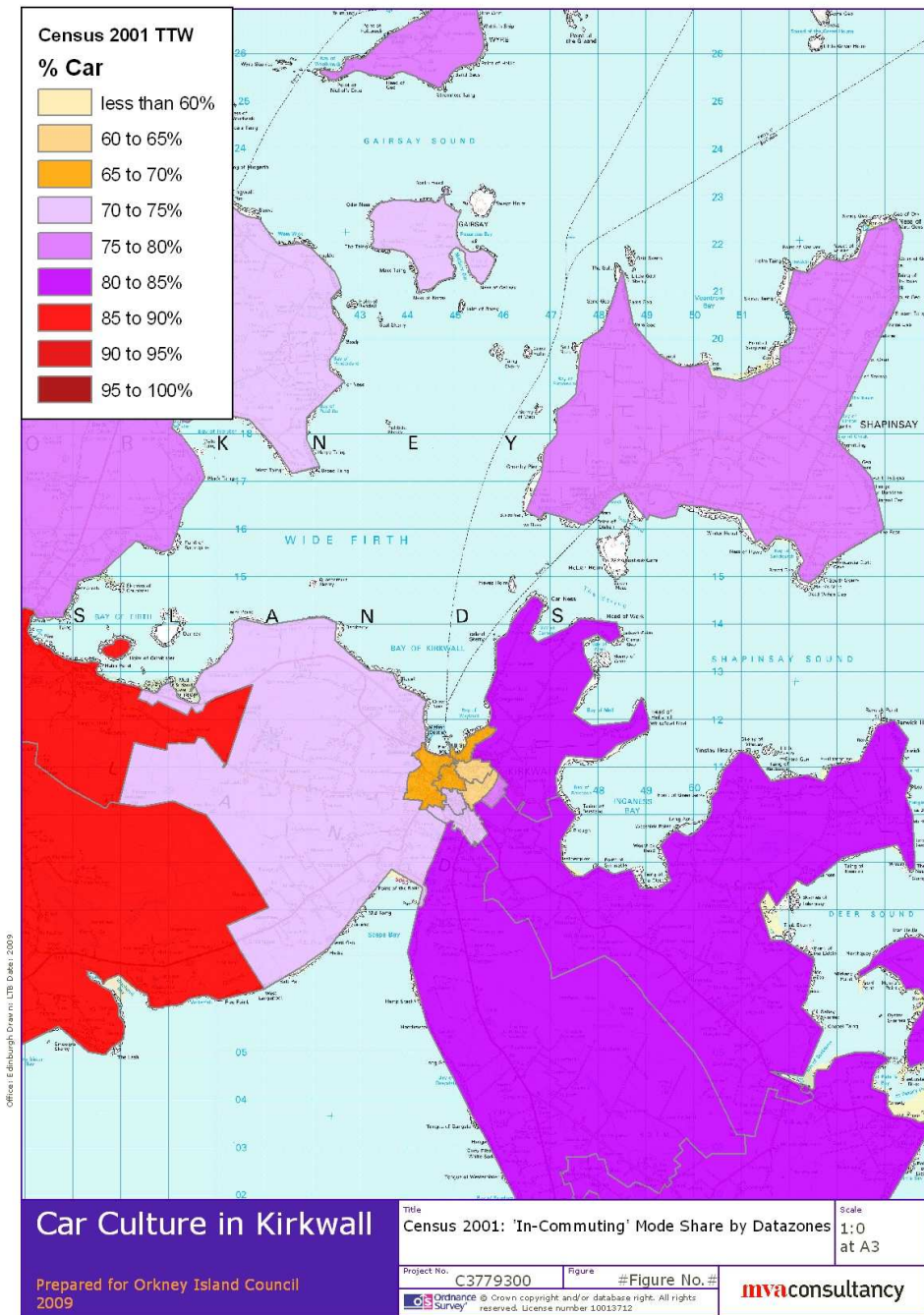


Figure 2.10 In-Commuting Mode Share

## 2.10 'Unnecessary' Car Use

### Introduction

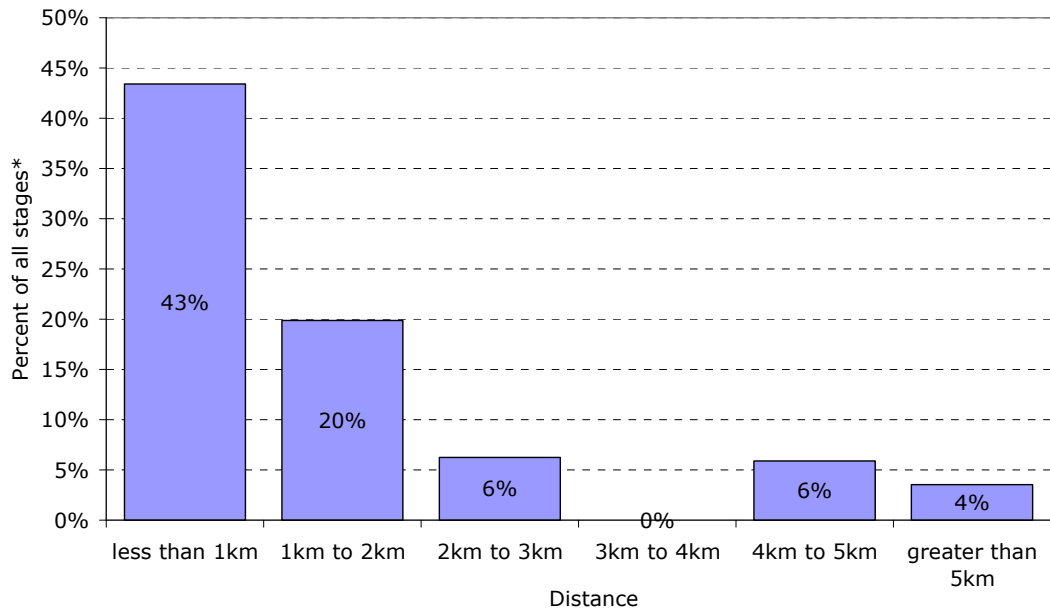
- 2.10.1 In this section, we consider SHS Travel Diary data trips for which there was a 'realistic' choice between car and non-car use. These choices include both 'sustainable' choices (where the trip-maker chose a sustainable mode despite having a car available to him/her and 'non sustainable' choices (using a car for short trips or when public transport appears to offer a reasonable alternative).
- 2.10.2 Note that this latter category should be the main focus of any subsequent attempts to achieve behavioural change, rather than a 'blanket approach' aimed at all car users, the majority of whom probably do not have a realistic alternative for the majority of their journeys.
- 2.10.3 The first step in our analysis was to identify the subset of current car trips where a switch to public transport is realistic. Secondly, records where walking or cycling offer realistic alternatives were identified (based on journey distance). Lastly, 'Sustainable' and 'Non-Sustainable' trips are defined and variations in the transport characteristics of these two categories considered.

### 'Non-Sustainable' mode choice – availability of public transport

- 2.10.4 A journey stage was defined as 'not realistic' by public transport if it was in at least one of the following categories:
- home based journey stages where the estimated time taken to walk to the nearest bus stop (or place to get a bus) was greater than 27 minutes or 'no bus available' (11% of all records N=3,298)
  - the trip was made between 22:00 and 05:00 ; (3% of all records N=3,298) or
  - analysis of public transport timetables indicated no service available (20% of all records N=3,298).
- 2.10.5 To assess the attractiveness/availability of the public transport alternative, it is important to consider full 'tours' (ie from leaving home to returning home), since if any of the legs of this tour cannot be completed by public transport, then a car will be required for the full tour. Thus, where a stage within a tour was identified as not a realistic public transport option, the whole journey was labelled as not realistic by public transport (2% of all records N=3,298).
- 2.10.6 The set of journeys made by adults from non-car available households were excluded from the analysis (16% of all records N=3,298). Also excluded were journeys with incomplete/incorrect origin or destination information or where a trip was outside Orkney (21% of all records N=3,298).
- 2.10.7 The 'public transport available' variable was attached to the main SHS Travel Diary data using the datazone information associated with each travel diary record. Overall 48% of all travel diary trips were identified as having a realistic choice between a public transport or car option. Of those with a realistic choice, 14% walked or cycled and only 1% travelled by bus.

**Sustainable mode choice – walking and cycling**

2.10.8 To undertake a more detailed analysis, it was necessary to identify ‘potential sustainable’ trips. This involved selecting those records where the Travel Diary indicated that walking or cycling was a realistic option. These were defined as a trip less than 1km in length. This threshold was chosen as it would capture the very short trips that most people would be able to walk (note that higher thresholds of 2km are considered in Chapter 5). Figure 2.11 illustrates how the mode share for the two non-motorised modes rapidly tails off with increasing trip length. Where short trips are considered, it should be noted that respondents to the SHS Travel Diary were not asked to provide details of trips which were less than a quarter of a mile or less than 5 minutes on foot (ie short walk to a bus stop).



**Figure 2.11 Trip Length Distributions for Walk and Cycle**

**Sustainable and Non-Sustainable mode choice**

2.10.9 A **‘Non-Sustainable Chooser’** is defined as an individual journey stage with:

- a car driver (or taxi) trip where a public transport option was available; or
- a car passenger trip less than 1km.

2.10.10 A **‘Active Travel Chooser’** is defined as an individual journey stage where the respondent walked or cycled.

2.10.11 A **‘Sustainable Chooser’** is defined as an individual journey stage where the respondent travelled by Bus (Active Travel Choosers are included within the Sustainable Category).

2.10.12 The combinations included within the ‘Sustainable’, ‘non-sustainable’ and ‘neutral’ categories are described in Table 2.5 below.



**Table 2.4 SHS Travel Diary Modes and Choice Categories**

Mode	Category	Included in analysis of choice?
Any trip made by non-car-owning households	No Realistic Choice	No
Bus from car owning households	Sustainable Choice	Yes
Car Driver & Taxi (No public transport available)	No Realistic Choice	No
Car Driver & Taxi (public transport available)	Non-Sustainable Choice	Yes
Cycling	Active Travel Choice	Yes
Ferry	No Realistic Choice	No
Passenger car/van (greater than 1km) Public transport available	Neutral (may not have generated a car trip)	Yes
Passenger car/van (greater than 1km) No Public transport	No Realistic Choice	No
Passenger car/van (less than 1km)	Non-Sustainable Choice	Yes
Walking	Active Travel Choice	Yes
Other	Excluded from analysis	No

- 2.10.13 The 'Sustainable/Non-Sustainable' variable was attached to the main SHS Household and Travel Diary data. Travel Diary journey stages where there was no realistic choice available were excluded from further analysis (the column to the right in Table 2.4 identifies these). Table 2.6 shows the resulting disaggregation of the Kirkwall SHS Travel Diary Journey Stages.



**Table 2.5 Sustainable and non-sustainable choices: KW15 Travel Diary Records**

Category	Proportion	Sample Size
Non-Sustainable Choice	36%	1,178
Active Travel Choice	8%	256
Sustainable Choice	1%	19
Neutral	5%	151
No Realistic Choice	16%	519
Excluded (No car available)	16%	525
Excluded (eg missing data)	20%	650
<b>Total</b>	<b>100%</b>	<b>3,298</b>

### Characteristics and Attitudes of 'Non-Sustainable' Mode Choice

2.10.14 Overall, 73% of travellers made a non-sustainable mode choice. The SHS variables with the widest range in proportions choosing non-sustainable modes are detailed below. Additional relevant material is provided in Appendix C which contains sample sizes and analyses supporting the findings:

- those from households with **two or more cars available** (81%) made more 'non-sustainable' trips than those with one car available. Those from households with '1 car and 2+adults' (66%) had the lowest proportion of 'non-sustainable-choice' travel.
- where the household income is '**greater than £30k**', 82% choose to use 'non-sustainable' modes, compared to 63% of travellers from 'less than £10k' households choosing these non-sustainable modes;
- those with a **full driving licence** show higher levels of 'non-sustainable choice' travel (78%) compared to the rest of the adult population (18%).
- the journey purpose with the highest proportion of non-sustainable-choice journeys are those associated with **employers business** (91%); the main journey purposes with the lowest proportions of non-sustainable-choice journeys are day trips (70%), shopping (73%) and commuting (73%).
- those who are '**self employed**' (89%) had the highest proportions of 'non-sustainable-choice' travel, followed by the 'permanently retired' (76%). Those looking after the home/family (62%) made the lowest proportion of 'non-sustainable-choice' travel.
- those from households where the Highest Income Householder (HIH) class was '**professional, managerial and technical**' (79%) made more 'non-sustainable-choice' trips than those from other households. Those from households where the HIH

class was 'partly skilled or unskilled' (50%) had the lowest proportion of 'non-sustainable-choice' travel;

- **older age groups** had higher proportions of 'non-sustainable-choice' travel than younger age groups. For example, 74% of the '65 years and over' age group choose to travel by non-sustainable modes, in contrast to 49% of those aged between 16 and 24 years;
- as expected, respondents who **drive daily** (85%) had higher proportions of 'non-sustainable travel choice than those who drive less often (52%);
- respondents who had **not used a bus in the previous month** (78%) had higher proportions of 'non-sustainable' travel choice than those who had recently used the bus service (52%); and
- respondents who rated public transport as **'very inconvenient'** (83%) had higher proportions of 'non-sustainable' travel choice than those who rated public transport as 'very convenient' (63%).

2.10.15 The percentage of 'non-sustainable' trips, generated from each datazone, are detailed in Figure 2.12. Zones to the South East of Kirkwall (eg zone containing Kirkwall airport) generate the largest proportion of 'non-sustainable-choice' trips (coloured dark red), whilst zones within Kirkwall town centre generate the lowest proportion of unsustainable mode choice (shaded green).

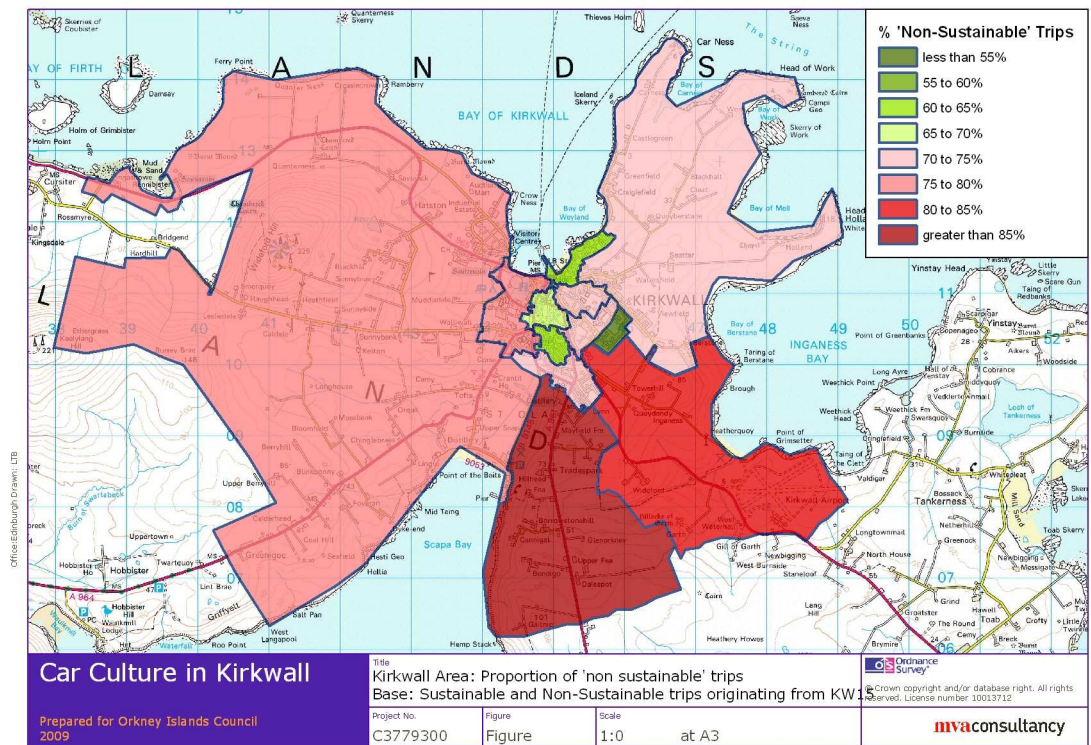


Figure 2.12 Distribution of 'non-sustainable-choice' trips

**2.11 Summary of Kirkwall Travel Patterns and Opportunities**

- 2.11.1 The SHS data suggests that approximately a quarter (24%) of trips made by adults from non-car-owning households in Kirkwall are made by car (predominately as passenger). This rises to 74% of trips made by adults from households with one car and to 90% for adults from households with two or more cars available.
- 2.11.2 Characteristics and attitudes of Kirkwall residents through the analysis SHS topics data associated with car travel, public transport indicate that, for Kirkwall residents:
- 42% of residents are concerned about traffic growth;
  - the majority (92%) have not used the bus in the previous month;
  - over two thirds (69%) were less than 6 minutes walk from their nearest stop;
  - 69% of those with a full driving licence drive everyday;
  - only 9% of Kirkwall car commuters claim to have the option of using public transport; and
  - of those travelling to work, 62% travelled by car, 2% travelled by bus and 32% by walking or cycling.
- 2.11.3 Consideration was given to those who choose to use the car and those who choose to travel by more sustainable means. Car choosers were more likely to show the following characteristics; live in households with two cars available; have high household incomes; live in households where the highest earner was in a 'professional or managerial' class; be self employed and travelling on 'employers business'.

## 3 Review of Travel in Similar Communities

### 3.1 Introduction

3.1.1 This chapter considers mode choice proportions in various other 'similar' communities (primarily using Census 2001 and Scottish Household Survey data). The chapter includes the following six sections:

- identifying similar communities for comparison with Kirkwall;
- car ownership;
- journey purpose ;
- mode choice proportions and households types (SHS Travel Diary 1999 to 2006);
- travel characteristics and attitudes (eg time to nearest stop, bike availability, concern about traffic growth etc); and
- summary of travel in comparable communities.

Additional relevant material is provided in Appendix D which contains sample sizes and analyses supporting the findings in this Chapter.

### 3.2 Identifying 'Similar' Communities

3.2.1 In terms of car ownership and mode choice Kirkwall's key features include:

- its 'Remote Small Town' status (ie a population between 3,000 and 10,000 which is more than 30 minutes drive from a settlement of 10,000 or more) - this classification incorporates both the size of the settlement and its role as a local 'hub' providing services (retail, health, education) for the surrounding predominantly-rural area;
- its location at the heart of an archipelago;
- its North Atlantic climate; and
- its UK/Scottish costs of car ownership and use.

3.2.2 The following fifteen communities have been considered in this comparison. The settlements selected are broadly comparable to Kirkwall, but with enough difference to highlight interesting variations:

- **Leirvik (Hordaland, Norway):** this town is the administrative centre of the Stord municipality in Orkney's twin region of Hordaland in Norway - with a population of just over 11,000 it is slightly larger than Kirkwall. Its winter weather is more extreme, so snow-based modes (motorised and non-motorised) are likely to be significant in the winter months;
- **St Peter Port (Guernsey):** like Kirkwall, St Peter Port is the main town on a UK island which experiences highly seasonal tourism, but it has a climate which is likely to be more favourable for sustainable modes. Its population (around 16,500) is more than twice that of Kirkwall;

### 3 Review of Travel in Similar Communities

- **Tórshavn:** the capital of the **Faroe Islands** – with a population of almost 20,000, Tórshavn is much larger than Kirkwall, but otherwise it should provide a good non-UK benchmark; and
- **Twelve benchmark Scottish 'Remote Small Town' Communities:** identified in Figure 3.1 below - each of these has a population similar to that of Kirkwall, but exhibit a wide range of household car availability (from 47% of households with access to a car in Rothesay (on the isle of Bute) to 85% of households in Ellon (in Aberdeenshire) - Kirkwall, with a current household car availability of 66% is almost exactly in the middle of this pack.

3.2.3 The relevant attributes of the fifteen benchmark communities are summarised in Table 3.1.

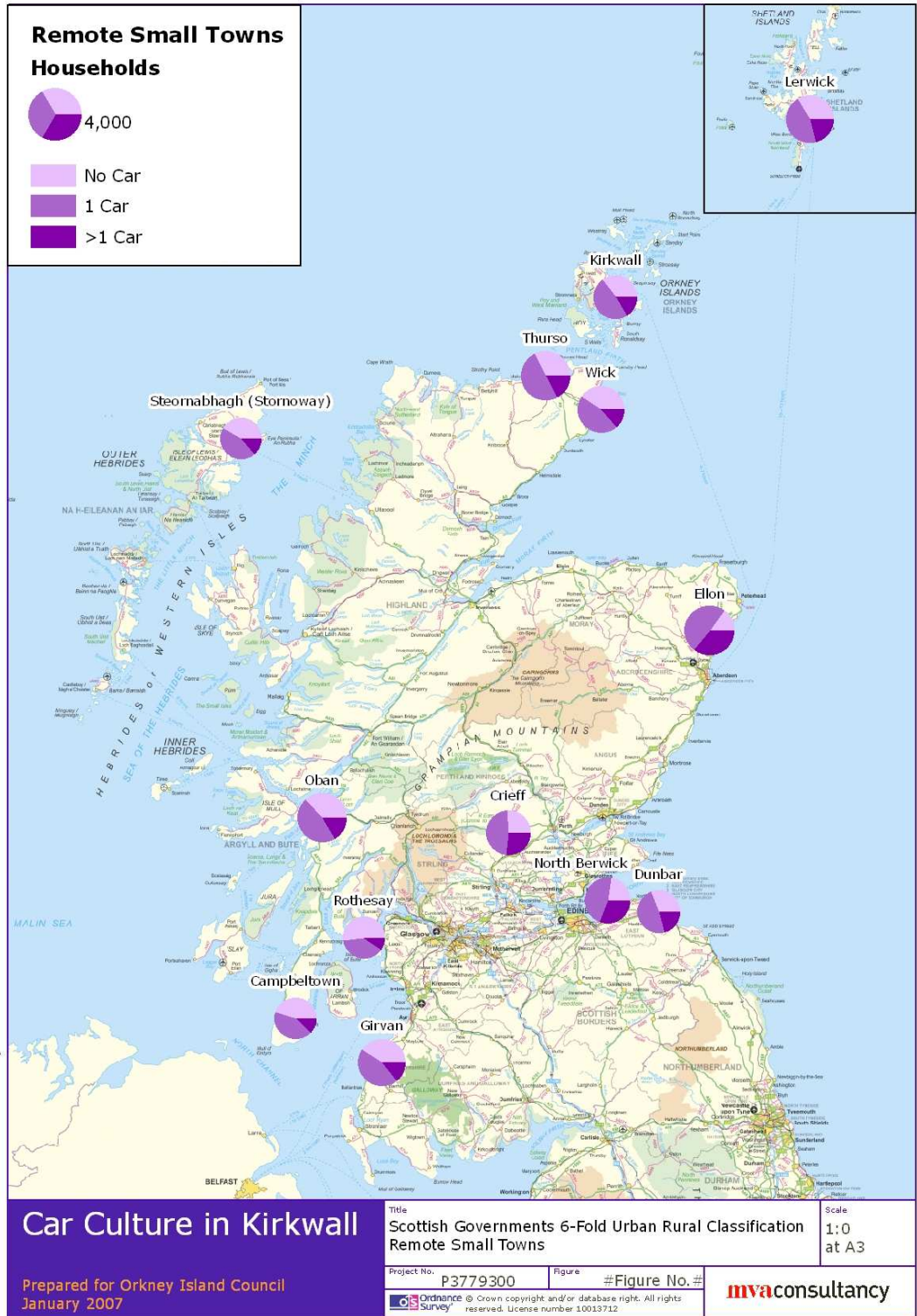


Figure 3.1 Twelve benchmark Scottish Communities and Car Availability



**Table 3.1 Benchmark Communities**

Town	Population (GROS 2006)	UK ?	Island ?	Climate Difference ?	Household Car Availability
<b>Kirkwall</b>	<b>6,460</b>	<b>Y</b>	<b>Y</b>		<b>66%</b>
Campbeltown	5,040	Y	N	Milder	54%
Crieff	7,050	Y	N	Inland	74%
Dunbar	7,700	Y	N	East Coast	69%
Ellon	9,860	Y	N	North East Coast	85%
Girvan	6,790	Y	N	Milder	59%
North Berwick	6,430	Y	N	East Coast	76%
Oban	8,050	Y	N	Milder	63%
Rothesay	4,850	Y	Y	Milder/more sheltered	47%
Steornabagh (Stornaway)	5,740	Y	Y	Similar to Kirkwall	64%
St Peter Port (Guernsey)	16,500	Y	Y	Warmer	40%**
Thurso	7,440	Y	N	Similar to Kirkwall	67%
Tórshavn (Faroe Islands)	19,000	N	Y	Similar to Kirkwall	67%**
Leirvik (Hordaland)	11,000	N	N	Norway	71%*
Lerwick	6,560	Y	Y	Similar to Kirkwall	65%
Wick	6,880	Y	N	Similar to Kirkwall	60%

\* Municipality of Stord

\*\*% Car Availability (per population) for the whole area (Faroe Islands/Guernsey)

#### 3.3 Mode Share and Car Availability

##### Introduction

3.3.1 The SHS Travel Diary (1999 to 2006) was used to estimate mode choice proportions from trips made by randomly chosen adults. Consideration was given to mode share proportions for four types of households:

- **C0** - households with no car (or van) available for use;
- **C1\_1** - households with one car/van available for the use of a single adult (with or without children);
- **C1\_2** - households with one car/van available for the use of two or more adults (with or without children); and
- **C2+** - households with 2 or more cars/available for private use.

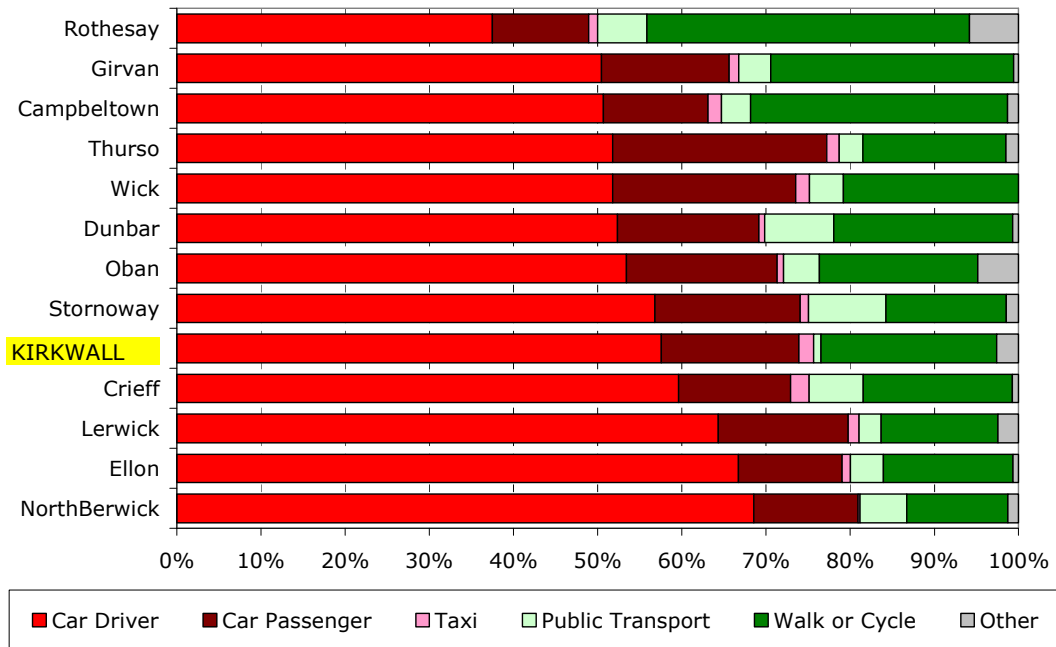
##### Mode Choice Proportions and Car Availability – Comparable Towns

3.3.2 Figure 3.2 illustrates mode share from trips made by randomly chosen adults in the SHS Travel Diary data, separately considering each of the 12 'comparable' towns. It may be seen from the Figure that:

- the highest percentages driving were within North Berwick (69%) and Ellon (67%), while Rothesay (38%) had the lowest proportion of car-driver trips;
- there were some large differences in the percentage of residents travelling as car (or van) passenger, ranging from 11% in Rothesay to 25% in Thurso – Kirkwall's share for this sub-mode was 16%;
- trips made as car drivers, car passengers and taxi passengers accounted for 81% of all trips in the North Berwick and Lerwick areas compared with 76% for the Kirkwall area and only 50% for the Rothesay area;
- the proportion of 'active travel modes (walking or cycling) ranged from 38% in Rothesay down to 12% in North Berwick - Kirkwall was about average, with 21%
- Kirkwall (1%) had the lowest public transport mode share (1%) of these 'Remote Small Scottish Town' communities, while Stornoway had the highest (9%).

It should be noted that Rothesay residents may commute to the Scottish mainland by ferry and it is unclear whether these are categorised as 'other' or 'car' trips within the Census TTW database. However, Census 2001 indicates that around 15% of employed Bute residents commute to jobs in the Scottish Mainland.



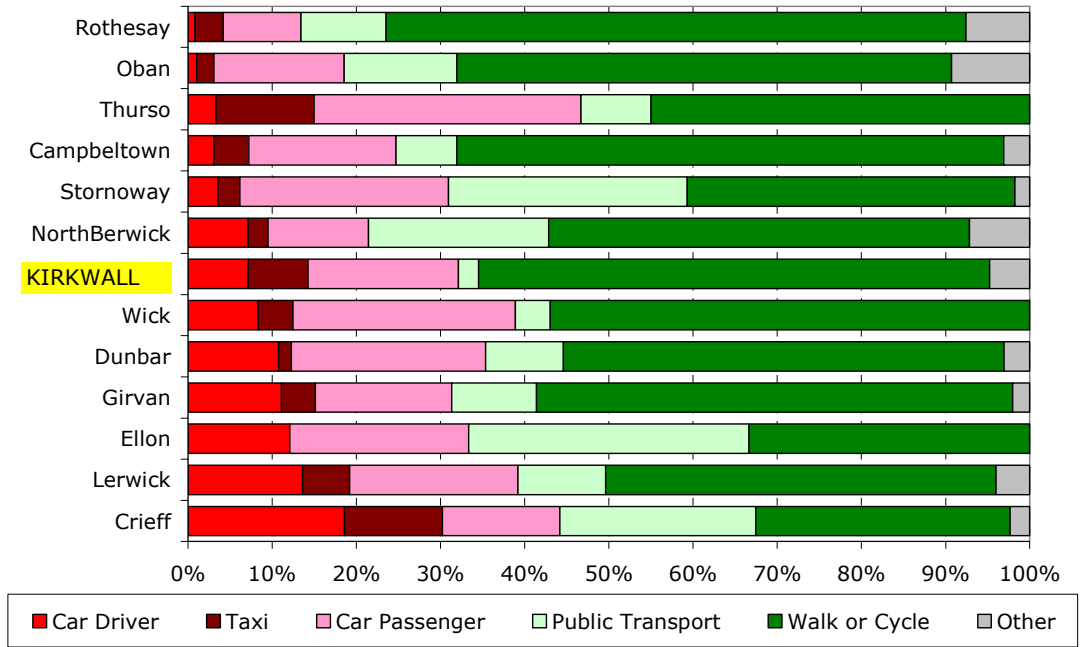


**Figure 3.2 Mode Choice Proportion**

**Mode Choice Proportions and Households with 'No Car Available'**

3.3.3 Figure 3.3 illustrates mode choice percentages for trips made by randomly chosen adults from households with no car available. The percentages vary significantly between towns, but much of this variation may be due to the influence of small sample sizes. However, it is noteworthy that:

- In Kirkwall combined car driver and car passenger trips accounted for 25% of the total trips undertaken by adults from non-car available households. This is much higher than the 10% for the Rothesay area and much lower than the 35% for both the Wick and Thurso areas.
- 61% of 'non-car available' Kirkwall travellers said they either walked or cycled. This percentage was highest in Rothesay (60%) and lowest in Crieff (30%) and Ellon (33%).
- 7% of 'non-car available' Kirkwall travellers said they travelled by taxi. This percentage was highest in Thurso (12%) and Crieff (12%) and lowest in Ellon (0%)

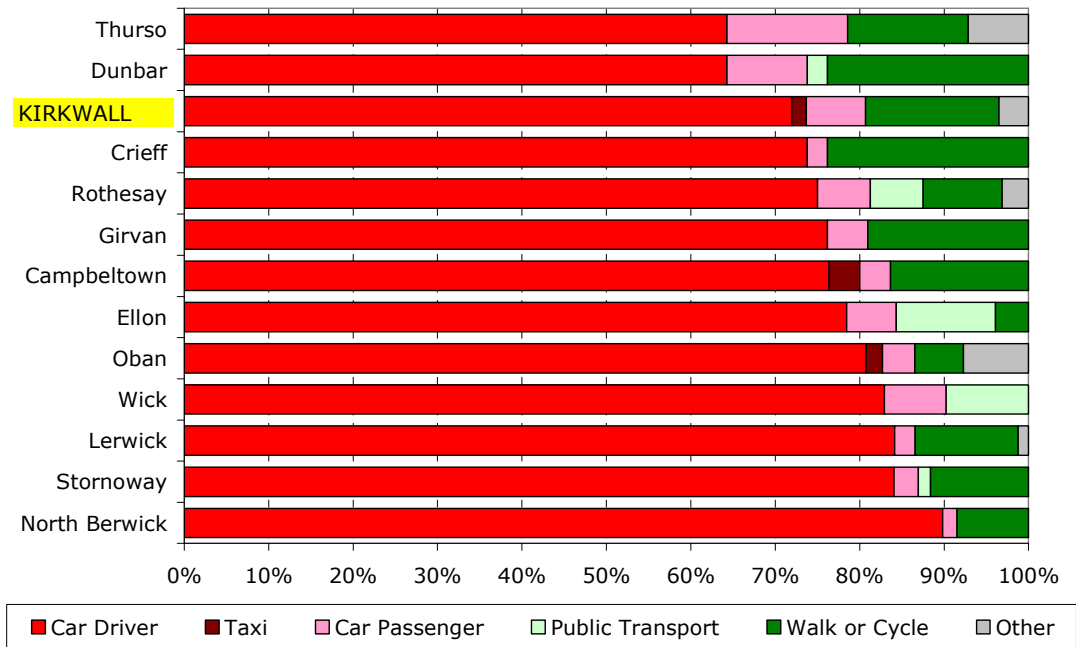


**Figure 3.3. Mode Choice Proportions: Households with 'No Car Available'**

**Mode Choice Proportions in One Car/One Adult Households**

3.3.4 Figure 3.4 illustrates mode choice percentages from trips made by randomly chosen adults from households with one car/van available for the use of a single adult. Again some of the variation will be due to sampling error due to small sample sizes, but it is noteworthy that:

- car drivers, car passengers and taxi passengers accounted for 81% of the Kirkwall area trips which is lower than the 92% for North Berwick trips and higher than the 74% for the Rothesay area trips; and
- 16% of Kirkwall travellers from one adult/one car households said they either walked or cycled. This was lower than for Dunbar (24%) and Crieff (24%), but higher than for Wick (0%).

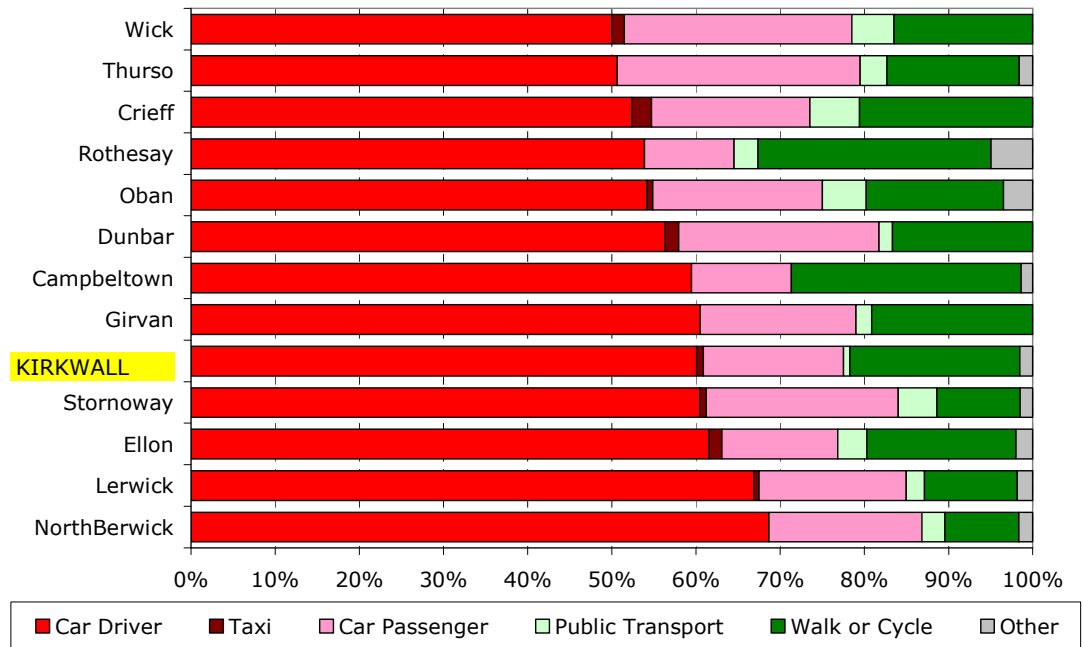


**Figure 3.4 Mode Choice Proportions in One Car/One Adult Households**

**Mode Choice Proportions in Car Competition Households (ie One Car & Two or More Adults)**

3.3.5 Figure 3.5 illustrates mode choice proportions from trips made by randomly chosen adults from households with one car/van available for the use of two or more adults and the SHS Travel Diary data, separately considering each settlement.

- car drivers, car passengers and taxi passengers accounted for 78% of the Kirkwall area trips which is lower than the 87% for North Berwick trips and higher than the 65% for the Rothesay area trips.
- 20% of Kirkwall travellers from households with 'one car & two or more adults' said they either walked or cycled. This was lower than for North Berwick, but higher than for Rothesay (28%).

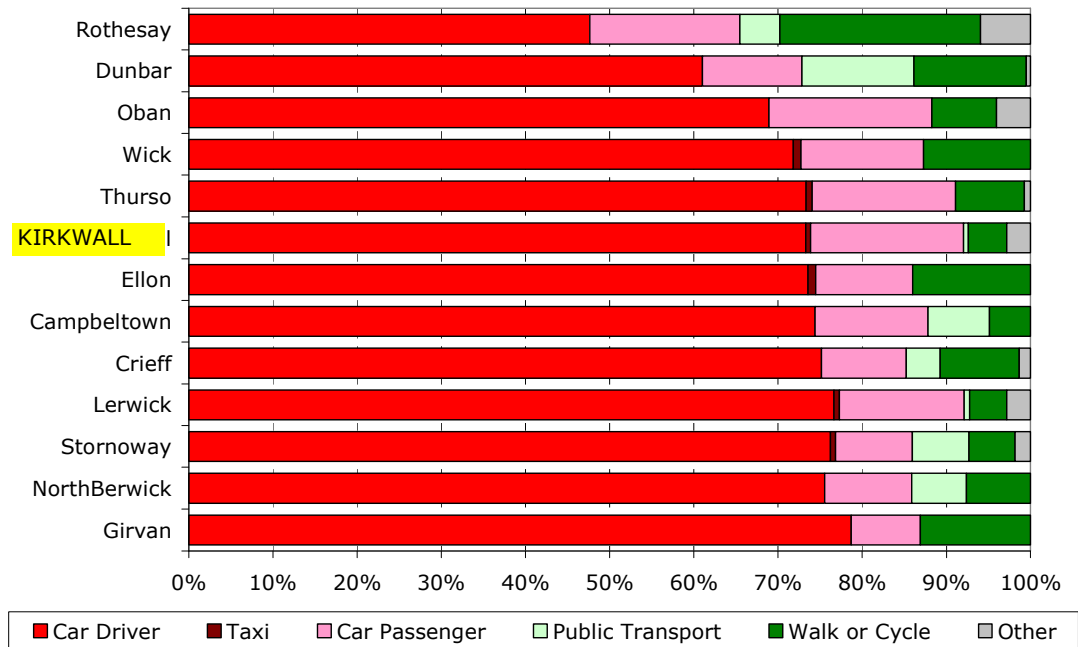


**Figure 3.5 Mode Choice Proportions: Car Competition Households**

**Mode Choice Proportions and Households with 'Two or More Cars Available'**

3.3.6 Figure 3.6 illustrates mode choice proportions from trips made by randomly chosen adults from households with 'two or more cars available' and the SHS Travel Diary data, separately considering each settlement:

- car drivers, car passengers and taxi passengers accounted for 92% of the Kirkwall area trips. This was higher than for any of the other areas.
- 5% of Kirkwall travellers from households with 'two or more cars available' said they either walked or cycled. This was lower than for Rothesay (24%), but higher than for Lerwick (4%).



**Figure 3.6 Mode Choice Proportions: Households with 'Two or More Cars Available'**

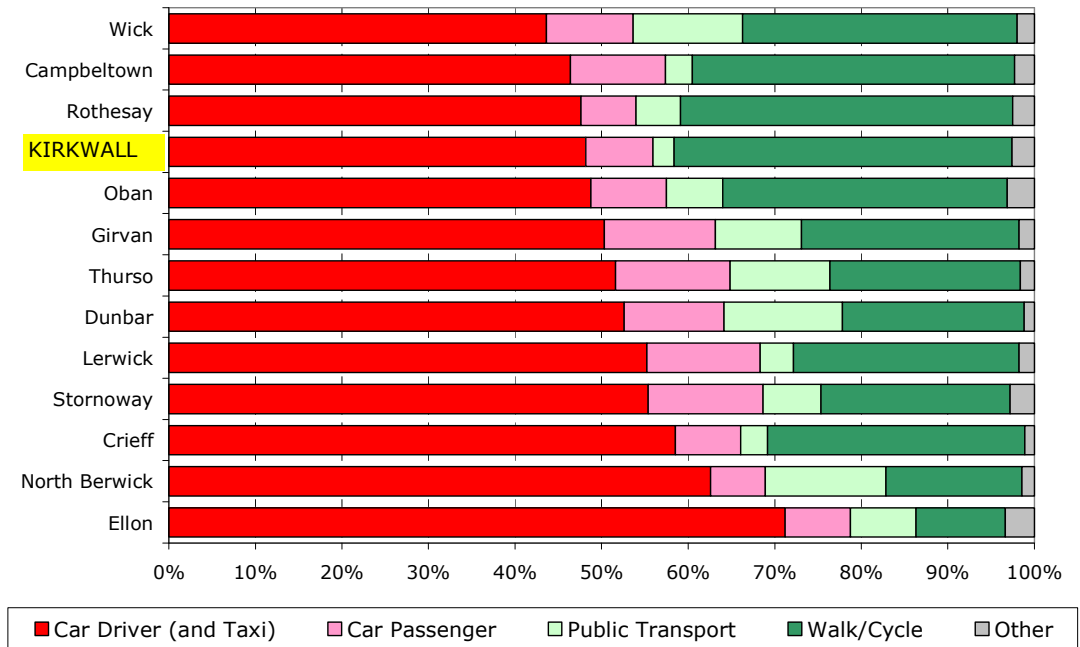
**3.4 Mode Choice Proportions by Journey Purpose**

3.4.1 In this section, we report findings on level of car use for various journey purposes. Initially, Census 2001 travel-to-work mode share is given consideration. Secondly, car use for 'non-commuting' purposes are considered through analysis of SHS Travel Diary records.

**Mode Choice Proportions and Travel-to-Work (Census 2001)**

3.4.2 Figure 3.7 details 'out-commuting' mode share by community. (Note that this measure excludes those who work from home).

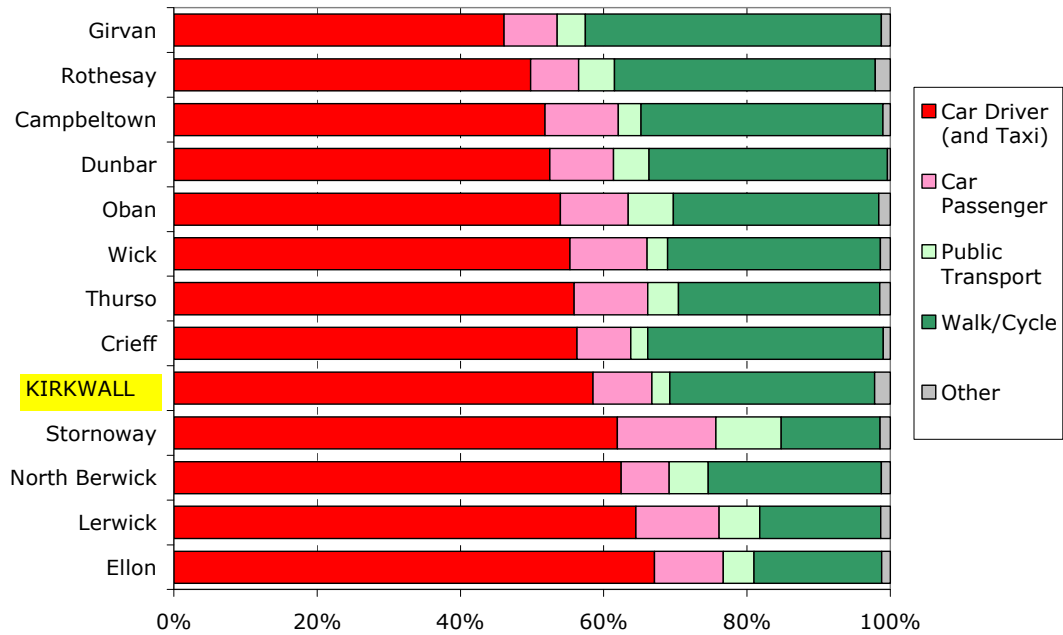
3.4.3 Seventy-nine percent of all commuting trips made by residents of Ellon were made by car. The corresponding percentages for the Wick area (54%), Rothesay (54%) and Kirkwall (56%) were all much lower. The highest use of public transport, for these commuting trips, was made by residents of North Berwick (14%) and Dunbar (14%) Kirkwall residents had the highest percentage of 'active travel' (walking or cycling) commuting trips (39%).



**Figure 3.7 Out-commuting Mode Share by Town**

3.4.4 Figure 3.8 details 'in-commuting' mode share by settlement. Commuters working in Ellon (77% car), Lerwick (76%) and Stornoway (76%) have the highest car mode share. Commuters working in Girvan (53%) tend to be less likely to use their cars. Again, those working at home are excluded from this analysis. The highest percentage of public transport commuters work in Stornoway (9%). The highest percentage of walking or cycling commuters is to jobs in Girvan (41%).



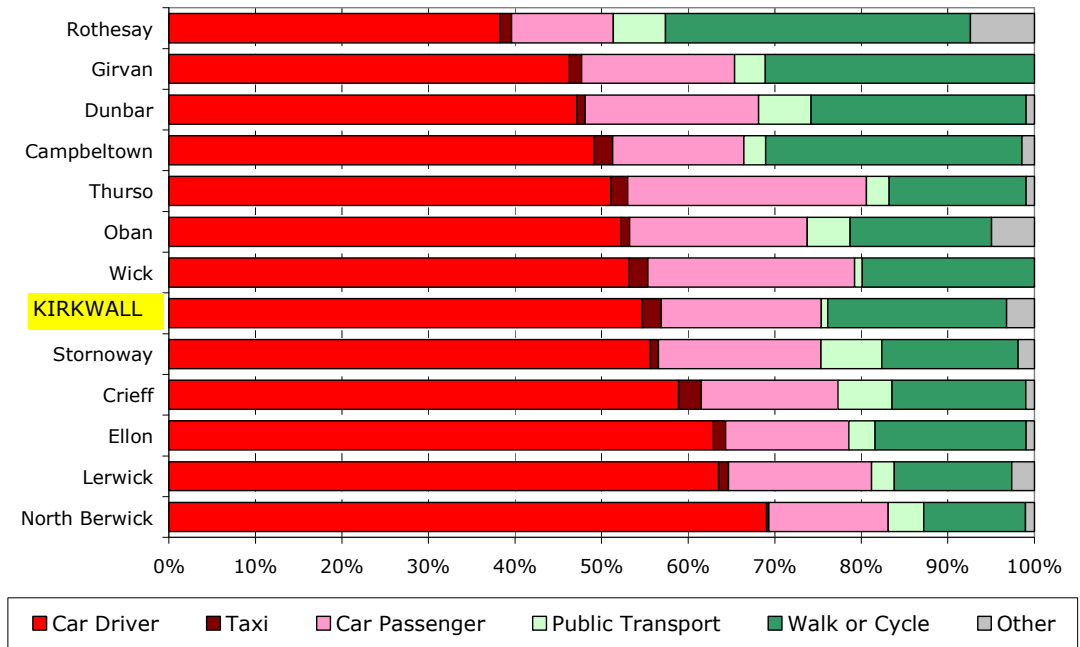


**Figure 3.8 In-Commuting Mode Share by Town**

**Mode Choice Proportions for 'Non-Commuting' Purposes**

3.4.5 Figure 3.9 details mode share for other (ie non-commuting) journey purposes made by the residents of each of the thirteen remote small Scottish towns. Combining car drivers, car passengers and taxis passengers together, people travelling by car (or taxi) accounted for 75% of Kirkwall residents' non-commuting trips. This proportion was highest for North Berwick (83%) and lowest for Rothesay (51%).

3.4.6 Twenty-one percent of Kirkwall travellers said they either walked or cycled. This was lower than the 35% for Rothesay trips and higher than the 12% for North Berwick area trips.



**Figure 3.9 Mode Share Proportions: Non-Commuting Journeys**

**3.5 Other SHS Travel Diary-based Indicators**

3.5.1 Table 3.2 shows the ‘performance’ of each town using a number of SHS-based indicators (SHS 1999 to 2006). These include:

- households with one or more bicycles which can be used by adults (rank 1 in Table 3.2 =highest percentage);
- households within 6 minutes walk to that nearest bus stop (or place where one could get a bus);
- households where there is at least one bus per hour;
- SHS ‘randomly chosen adults’ who rated public transport as either ‘convenient’ or ‘very convenient’;
- SHS ‘randomly chosen adults’ were either ‘very concerned’ or ‘quite concerned’ about the increase in the amount of traffic on Scotland’s roads;
- Census 2001 % of public transport users in households with car or van (1 = town with highest proportion of public transport users).

3.5.2 It may be seen from the table that:

- few Kirkwall households are within 6 minutes walk of a bus stop (Kirkwall ranks 13<sup>th</sup>);

### 3 Review of Travel in Similar Communities

- few Kirkwall households are near an hourly bus service (Kirkwall ranks 13th);
- few Kirkwall residents rate public transport as convenient (Kirkwall ranks 11<sup>th</sup>)
- few Kirkwall residents from car available households use public transport (Kirkwall ranks 10<sup>th</sup>)
- Relative to other similar towns, Kirkwall has a high proportion of households with a bike available (Kirkwall ranks 2<sup>nd</sup>)

**Table 3.2 SHS Indicators - Ranking**

Comparable Remote Small Town*	Bike available	<6mins to nearest bus stop	At least one bus per hour	Rate public transport as 'convenient'	% PT in car avail HHs
Kirkwall	2	13	13	11	10
Campbeltown	11	5	10	4	11
Crieff	9	8	2	3	3
Dunbar	3	9	9	12	5
Ellon	1	10	4	9	2
Girvan	12	4	7	7	9
Lerwick	13	1	1	8	7
North Berwick	6	12	5	5	1
Oban	7	11	8	2	12
Rothsay	8	2	3	6	13
Stornoway	10	3	6	1	8
Thurso	4	6	11	13	6
Wick	5	7	12	10	4

\* Note: Settlement Area definition is based on household postcode sector as datazones were unavailable.

### 3.6 Non- Scottish Towns

- **Tórshavn (Faroe Islands):** Public transport is well organised in the Faroe Islands. The Transport Network consists of interconnecting buses and ferries plus a helicopter service. A coach links the Airport to Tórshavn. Tórshavn also offers a city bus service with six different routes connecting the surrounding suburbs with the downtown business and retail area. Since 1 January 2007, buses within Torshavn have been completely free of charge to the public. This is intended as an environmentally-friendly programme making people use public transport instead of their cars.
- **St Peter Port (Guernsey):** Table 3.12 illustrates commuting mode share proportions for Mainland Orkney and Guernsey Island. It may be seen from the Table that trips made as car drivers, car passengers and taxi passengers accounted for 63% of all commutes from Mainland Orkney Island compared with 78% for Guernsey. The proportion of 'active travel modes (walking or cycling) was higher for Orkney (33%) than Guernsey (15%).

**Table 3.3 Mode Share Proportions - Travel to Work**

Method	Mainland Orkney	Guernsey Island
Bus	2%	1%
Driving a Car or Van or Taxi	54%	70%
Passenger in a Car or Van	9%	7%
Walk or Cycle	33%	15%
Other	3%	5%
<b>Total</b>	<b>100%</b>	<b>100%</b>
Sample Size	3,392	31,359
Working from home	220	934

Source: Guernsey Island Census 2001 and UK Census 2001

### 3.7 Summary of Travel in Similar Communities

- 3.7.1 In terms of the percentage of households having access to at least one car and the percentage of trips by car and taxi Kirkwall sits largely within the mid range of the towns considered in the study. However the percentage of trips by public transport is generally lower and the percentage of trips involving either walking or cycling are towards the higher end of this range.

### 3 Review of Travel in Similar Communities

- 3.7.2 Fifty-eight percent of commuters working in Kirkwall travel as a car driver and 29% either walk or cycle. Almost half (48%) of Kirkwall residents travel as a car driver and 39% either walk or cycle. This suggests that those working and living in Kirkwall are more likely to commute by sustainable means and it is those residing outside Kirkwall and accessing jobs in the town that are more likely to travel by car.

## 4 Kirkwall Car Culture Survey

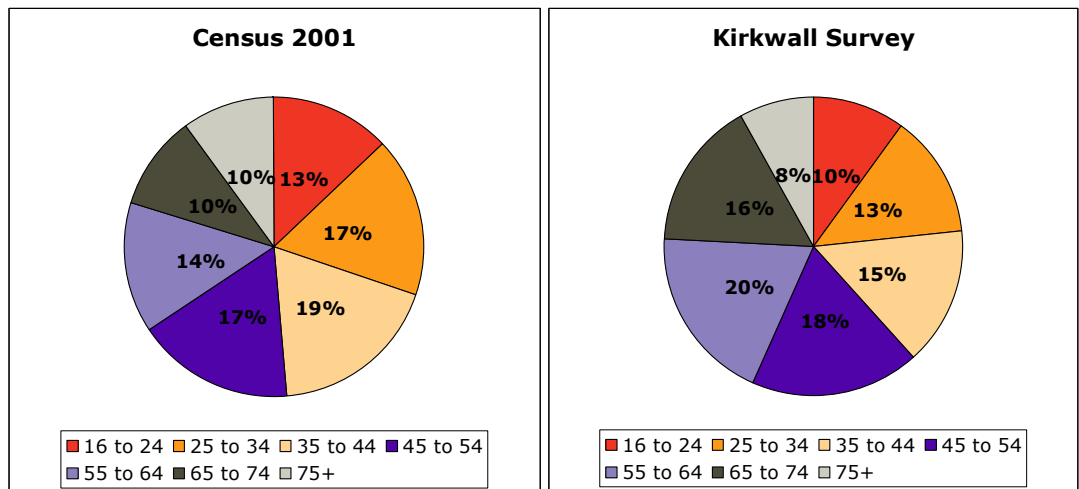
### 4.1 Introduction

- 4.1.1 A household survey was undertaken to obtain information and hence help understand the travel behaviour of Kirkwall residents. The (associated) questionnaires, along with a covering letter, were distributed to 2,898 named individuals in the Kirkwall Area (see Figure 2.1) in the week beginning 4<sup>th</sup> May 2009. Recipients were then asked to return the completed questionnaires to MVA in a reply-paid envelope by 5th June 2009. Copies of the questionnaire and covering letter are presented in Appendix E. A web-based version of the questionnaire was also made available to residents. Local awareness about the survey was raised through a 'drop in event' and features on Orkney Radio.
- 4.1.2 The survey consisted of two parts.
- *Main Household Survey* - an 8 page questionnaire to be completed by an adult chosen to represent the household; and
  - *Additional Adults Survey* - four copies of a 4 page questionnaire to record the views of up to four adult members of the household (ie aged 16 and over).
- 4.1.3 A total of 446 'main household survey' forms were completed, representing a response rate of 15%. In addition, 773 respondents completed the 'additional adults survey' questionnaire.
- 4.1.4 Missing and 'don't know' responses have been excluded from the figures presented in this Chapter, unless otherwise indicated. Where they differ from the total number (N) of participants, they are shown in the notes attached to each table. In tables where figures have been rounded, they may not always match the sum of the constituent items and the actual totals shown.
- 4.1.5 The remainder of this Chapter covers the following topics:
- profile of respondents;
  - mode choice and car availability;
  - current car movements;
  - reasons for using a car in Kirkwall;
  - problems with using a car in Kirkwall;
  - attitudes towards car use;
  - car sharing;
  - transport initiatives – measures that would encourage more sustainable mode choice; and
  - impact of car use.



## 4.2 Profile of Respondents

- 4.2.1 It was important to identify the characteristics of the residents of Kirkwall who participated in the survey in order to ensure that it was representative of the population. To evaluate any sample bias that may have occurred, the age and gender distribution of participants was contrasted with those from the Census 2001 survey for adult residents in Kirkwall. Figure 4.1 shows the actual and expected age distribution. It may be seen that there is a slight under representation of those aged between 16 to 44. Forty-five percent (N=752) of respondents were male and fifty-five percent were female. This is reasonable, when compared to the 2001 Census (49% Male; 51% female).



Base: Additional Adults Survey

**Figure 4.1 Actual and expected Age Distribution**

- 4.2.2 In addition to determining age and gender details, the survey identified driving licences, travel cards, blue badge holders and if there are any factors limiting travel choices. These characteristics are summarised as follows:
- **Drivers Licence:** Three quarters (75% N=753) of respondents (aged 17+) have a full drivers licence;
  - **Travel Cards:** Over a third (37% N=698) of all respondents have a Concessionary Travel Card (84% of those aged 60+ have a card); 5% have a dial-a-bus pass and 2% have a season ticket;
  - **Disabilities:** 9% (N=733) hold a blue badge (provides parking concessions to disabled people who travel as car driver or passenger); and
  - **Health Issues:** 17% (N=742) of respondents report having a long standing illness, health problem or disability that limits their travel choice.

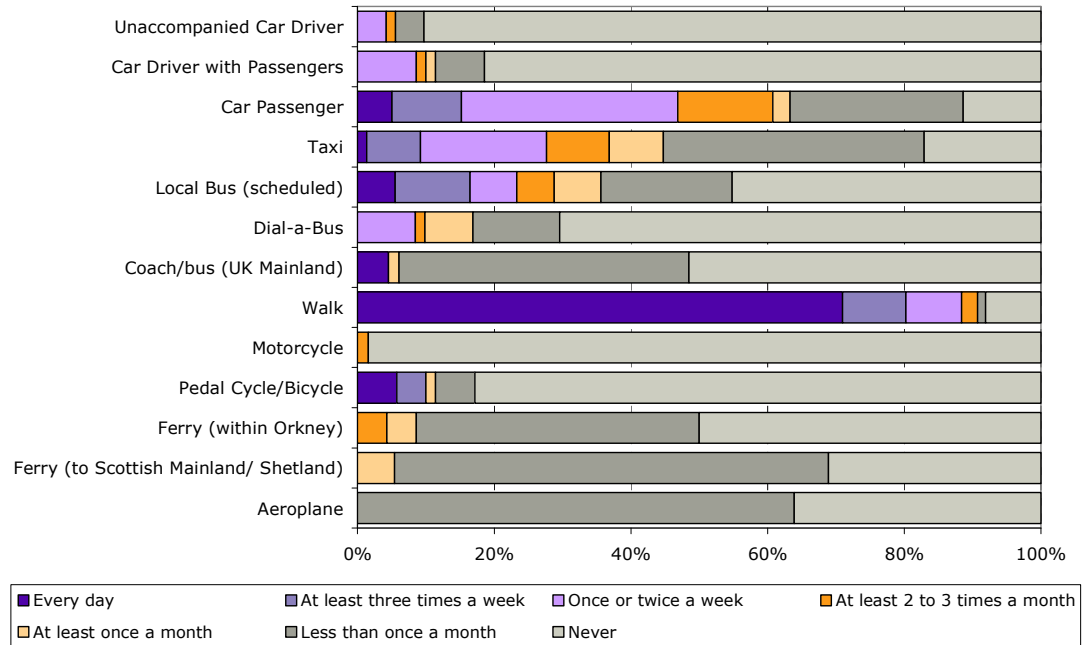
**4.3 Mode Choice and Car Availability**

4.3.1 It is desirable to be able to compare car use with other forms of transport. This section shows the frequency with which respondents say they used cars (as driver or passenger), buses, ferries, planes, bicycles and walking. Consideration was given to mode share for three types of households: Households with 'no car available', 'one car available' and 'two or more cars available'.

4.3.2 Of the of Kirkwall households participating in the survey, 18% (N=422) did not have access to a car/van, 56% had access to one car/van and 25% had access to two or more.

**Mode Choice and Households with 'No Car Available'**

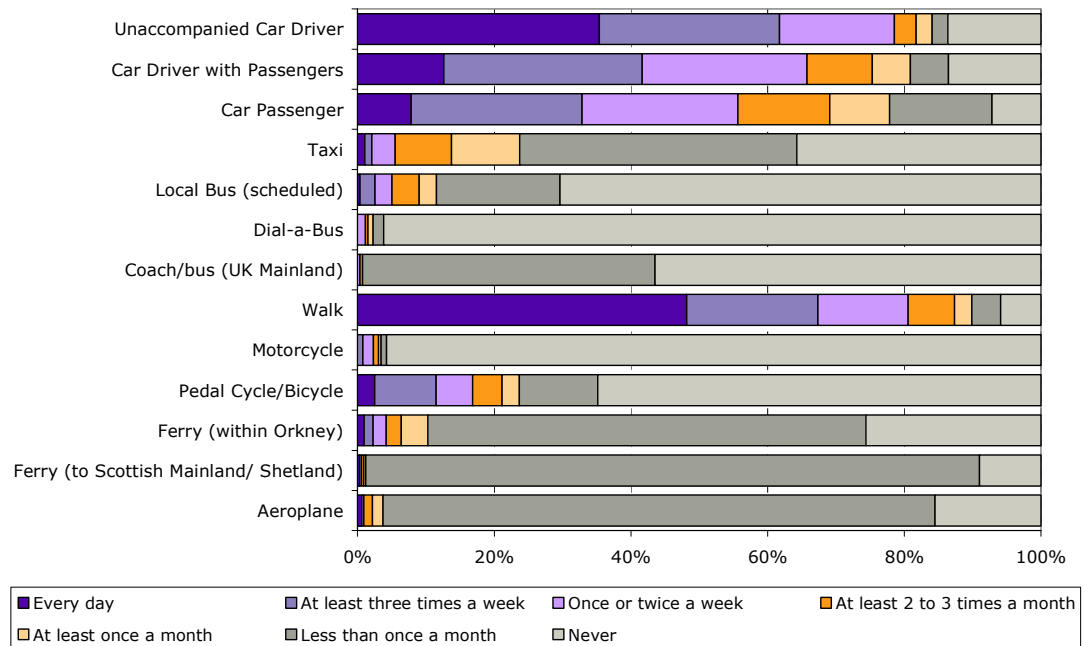
4.3.3 Figure 4.2 shows the mode choice for adults from households with no cars available. Walking is the transport mode of choice for the vast majority of the Kirkwall population from no car available households, with 71% reporting that they walked everyday and 88% indicating that they walked at least once a week. As might be expected, few respondents, from households, with no car available traveled as drivers. For example, less than one in ten (9%) drive at least once a week with passengers and only 4% drive unaccompanied.



**Figure 4.2 Households with No Car Available: Frequency of use of different forms of transport**

**Mode Choice and Households with 'One Car Available'**

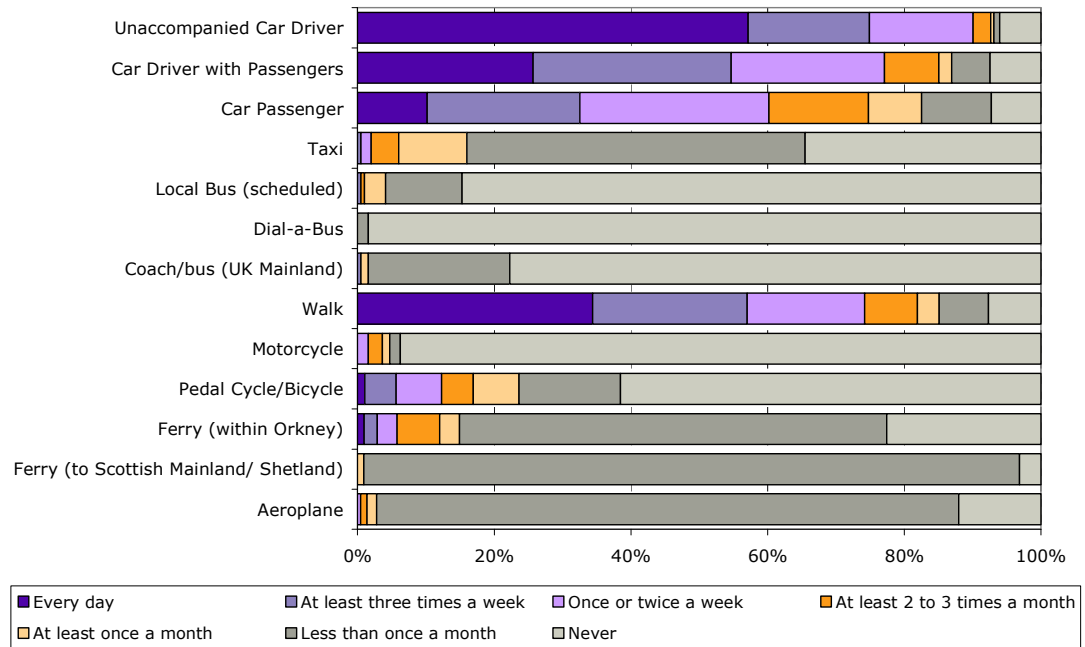
4.3.4 Figure 4.3 shows the mode choice for adults from households with one car available. Walking is the mode of transport choice for of the vast majority of the Kirkwall population from one car households (almost half (48%) indicated that they walk daily and 81% indicate that they walk at least once a week). Of Kirkwall residents from households with one car available, 35% said they drove unaccompanied everyday. Almost four fifths (79%) said they drove alone at least once a week.



**Figure 4.3 Households with One Car Available: Frequency of use of different forms of transport**

**Mode Choice and Households with 'Two or More Cars Available'**

4.3.5 Figure 4.4 illustrates mode choice for adults from households with two or more cars available. Driving a car is the mode of transport of choice for of the vast majority of the Kirkwall population from two (or more) car households. Of Kirkwall residents from households with two (or more) cars available, 57% said they drove unaccompanied everyday and 90% drove alone at least once a week. Over a third (34%) indicate that they walk daily and 74% indicate that they walk at least once a week.



**Figure 4.4 Households with Two or More Cars Available: Frequency of use of different forms of transport**

**4.4 Current Car Movements**

**Introduction**

4.4.1 All respondents who indicated that they travelled by car (as a driver or as a passenger) or by taxi at least once a month were asked to identify their top 8 most frequent trips made by car. They were also asked to identify the zones involved from detailed zone maps (see Figure 4.5 and Figure 4.6). This information was used to generate a matrix of current car movements which could subsequently be used to identify the subset of short trips (by age, gender and household car ownership), which had the potential to be easily ‘converted’ to active travel modes. The data could also be utilised in identifying which of the car trips have the potential to be moved to existing fixed or demand responsive public transport services. This would highlight any significant gaps in current public transport provision.

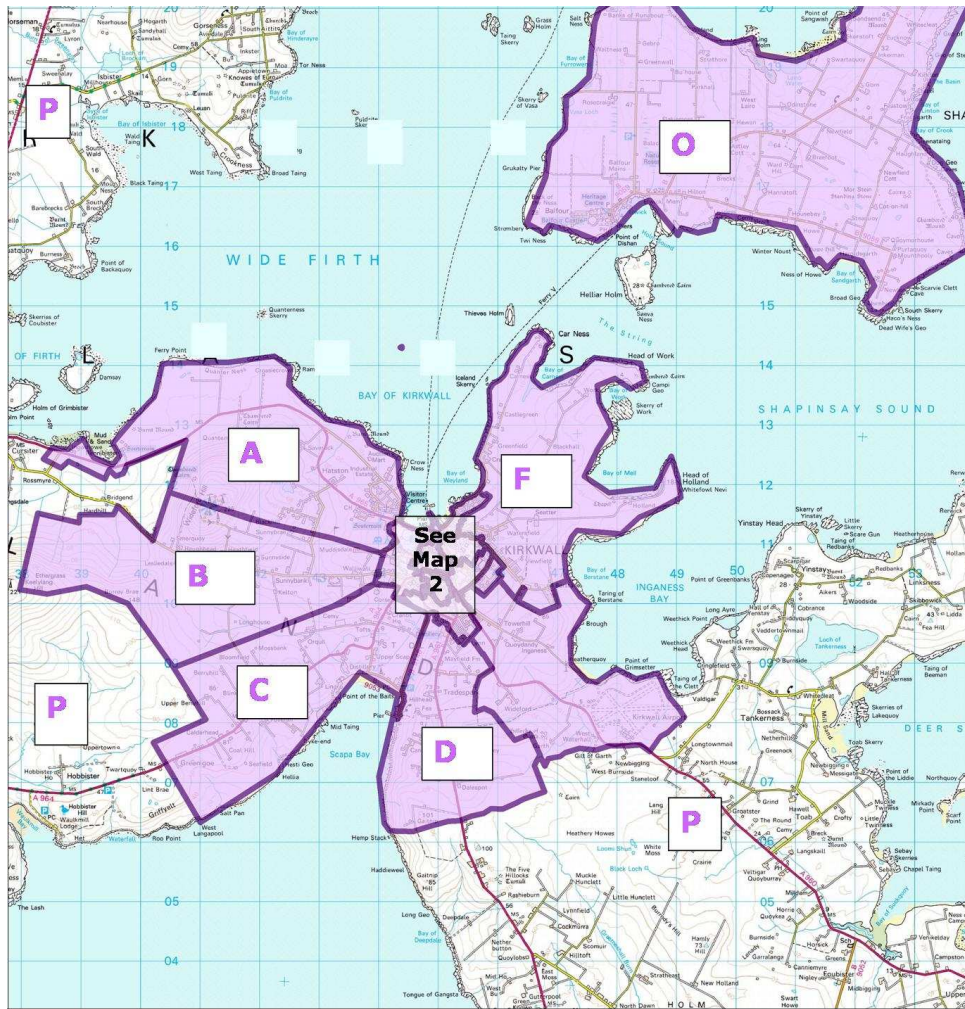


Figure 4.5 Kirkwall Area Map 1 – Zone boundaries



**Figure 4.6 Kirkwall Area Map 2 – Zone Boundaries**

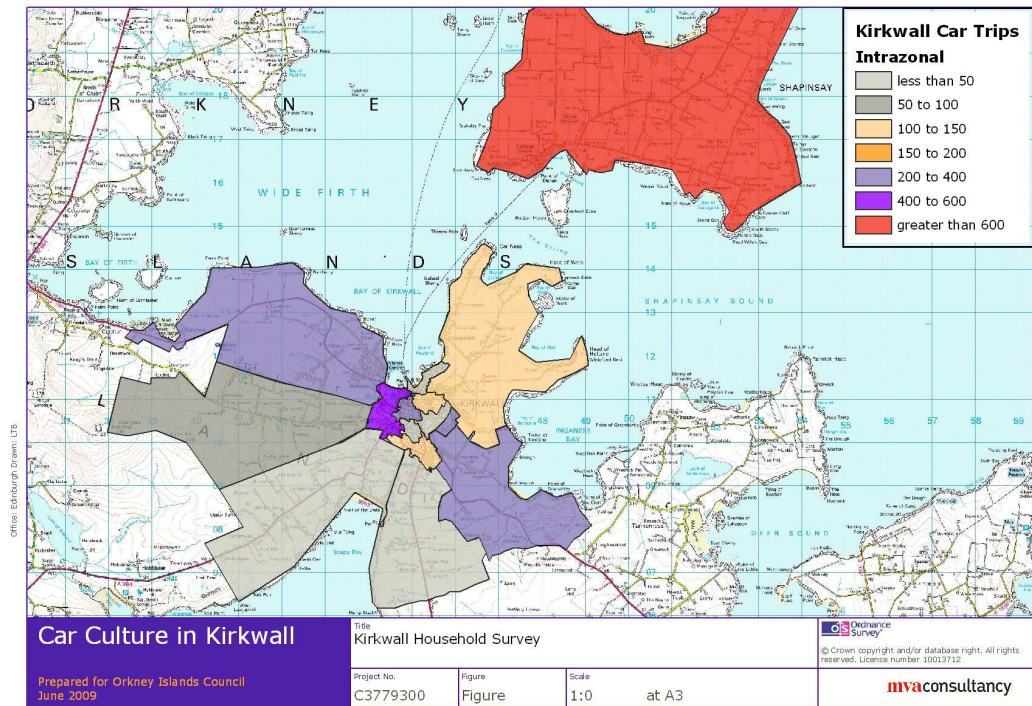
4.4.2 The analysis of current car movements is split into four sections:

- 'Intrazonal' movements;
- the top car movements;
- journey purpose; and
- characteristics of respondents making short car trips.

#### **Intrazonal car trips**

4.4.3 Firstly, consideration is given to trips that originate and finish within the same zone (ie intrazonal trips). Figure 4.7 illustrates the absolute number of intrazonal car trips within each zone in the Study Area. The zones generating the largest numbers of intrazonal car trips are Zone O (Shapinsay) and Zone G (East of Kirkwall Town). The majority of these intrazonal trips will be very short (ie less than 1km). However, for some trips within large zones the distance could be greater.





**Figure 4.7 Intrazonal Car Trips**

**Top 15 Car Movements within Kirkwall Town**

4.4.4 Table 4.1 provides details of the top 15 car movements within Kirkwall Town. These are further illustrated on Figure 5.9. The thickness of the lines represents trip numbers. It may be seen that there are high volumes of short car trips to/from Zone G, East of Kirkwall Town (see trips 2, 2, 3, 4 and 6).

**Table 4.1 Top 15 car trips within Kirkwall Town (Zones G to N)**

Origin and Destination Zone	Distance (km)	Total Car Trips	Rank
G & H	0.4	2,502	1
G & N	0.8	2,353	2
G & J	1.2	1,510	3
G & L	0.8	1,484	4
H & N	0.9	1,383	5
G & K	0.4	1,136	6
H & M	1	1,061	7
I & N	1.2	864	8
H & K	0.5	862	9
H & L	0.6	722	10
J & N	1.5	674	11
L & N	0.7	602	12
G & I	0.9	558	13
G & M	1.2	503	14
H & J	0.8	500	15

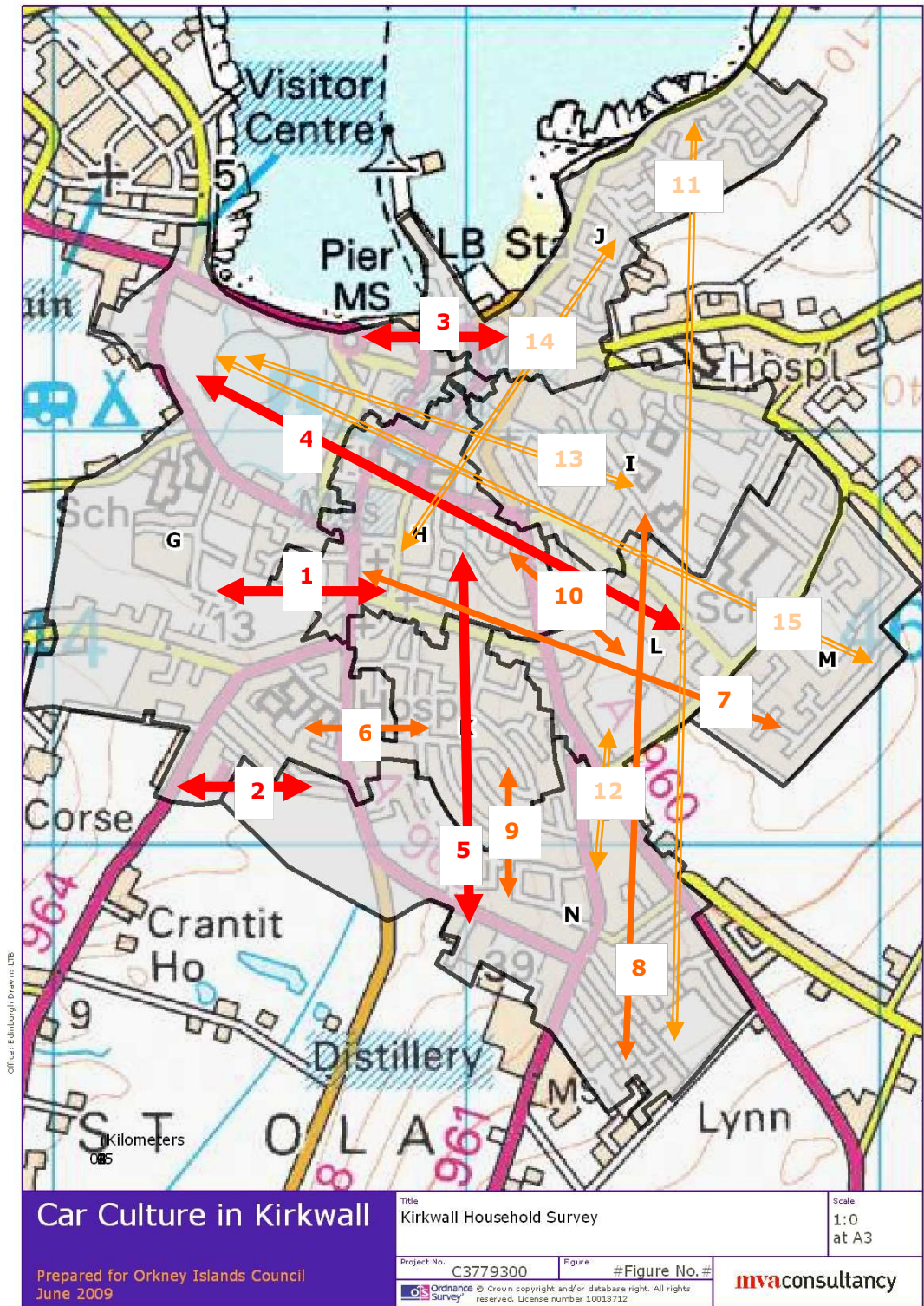


Figure 4.8 Top 15 Car Movements within Kirkwall Town (Zones G to N)

### Short Car Trips

- 4.4.5 In order to undertake a more detailed analysis, we identified short car trips where walking was a realistic alternative. These were defined as trips less than 2km in length. The various combinations of trips included within the 'short distance' and 'long distance' categories are detailed in Table 4.2 below.

**Table 4.2 Car Trip Distance Categories**

Car Trip Description	Distance Category	Included in analysis of choice
Trip with Kirkwall Town (Zones H,I,J,K,L,M,N,)	Less than 2km (walkable)	Included (short)
Intrazonals (Zones H,I,J,K,L,M,N,)	Less than 2km (walkable)	Included (short)
Intrazonals (Zones A,B,C,D,E, O,P)	Distance unknown	Excluded
Trips between Neighbouring Zones (eg Zone A to Zone B; Zone A to Zone G etc)	Distance unknown	Excluded
Missing Data (eg no origin or destination Zone) etc	Distance unknown	Excluded
Any trip greater than 2km (eg Zone F to Zone G; Zone O to Zone B etc)	Greater than 2km (non-walkable)	Included (long)

### Journey Purpose

- 4.4.6 The majority of short (ie less than 2km) car trips were for shopping (39% N=20,306) or commuting (35%), 23% were for 'other' purposes and only 3% were business trips.
- 4.4.7 Table 4.3 details the absolute number of short car trips originating from home by journey purpose. The top ten attractors of short car trips are highlighted red and orange within the Table. These include:
- shopping trips to Zone G and to Zone H;
  - commuting to jobs in Zone H, Zone G, Zone N and Zone J; and
  - 'other' journey purposes in Zone I, Zone L, Zone G and Zone N.

**Table 4.3 Short From Home Car Trips and Journey Purpose**

Destination Zone	Commute (travelling to work)	Shopping	Business (as part of work)	Other	Total
G	298	766	14	139	1,217
H	311	521	31	80	943
I	90	44	16	163	313
J	128	10	3	15	156
K	0	20	0	26	46
L	24	18	0	156	198
M	54	11	0	44	109
N	199	68	0	129	396
Total	1,104	1,458	64	7,52	3,378

Base: short car trips from home

4.4.8 Figure 4.9 details the destination (and journey purpose) of short car home based trips. It may be seen that:

- almost two thirds of trips (63%) to zone G are associated with shopping. Almost a quarter (24%) are associated travel to work; and
- over half (55%) of trips to Zone H are associated with shopping and a third are associated with travel to work.



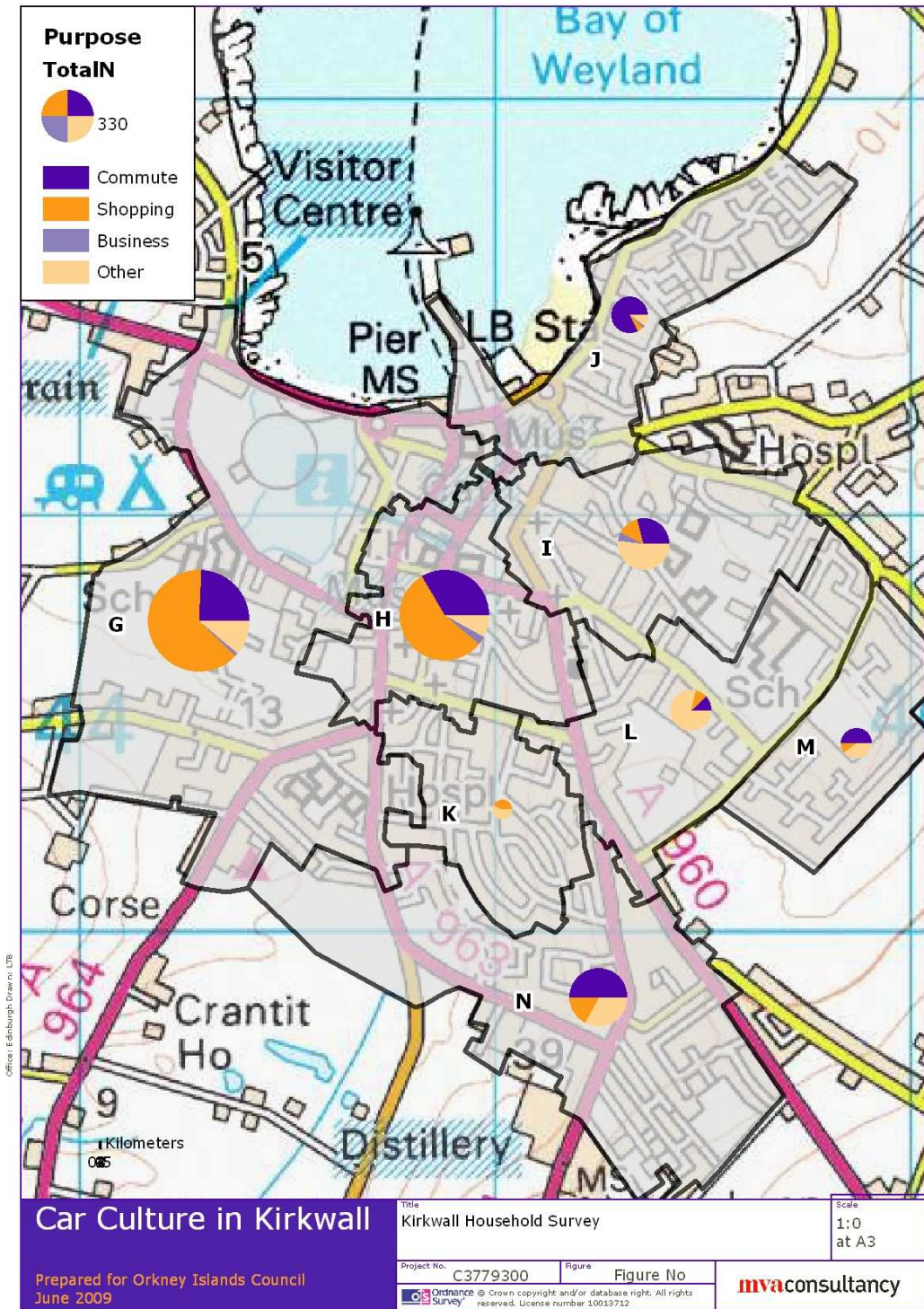


Figure 4.9 Short From Home Car Trips by destination and Journey Purpose

### Characteristics of Respondents Making Short Car Trips

- 4.4.9 An attribute defining short trip choosers was created and attached to the main adult survey data:
- a **'frequent short trip'** chooser was defined as any individual who made more than 30 short car trips per month (ie roughly one every two days);
  - an **'infrequent short trip'** chooser was defined as any individual who made less than 30 short car trips per month; and
  - other respondents included individuals who made a car trip (but did not make any short car trips) or any individual who travelled by car less than once a month.
- 4.4.10 Trips where the distance could not be calculated were excluded from further analysis. Table 4.4 shows the resulting disaggregation of Kirkwall Adult Survey data.

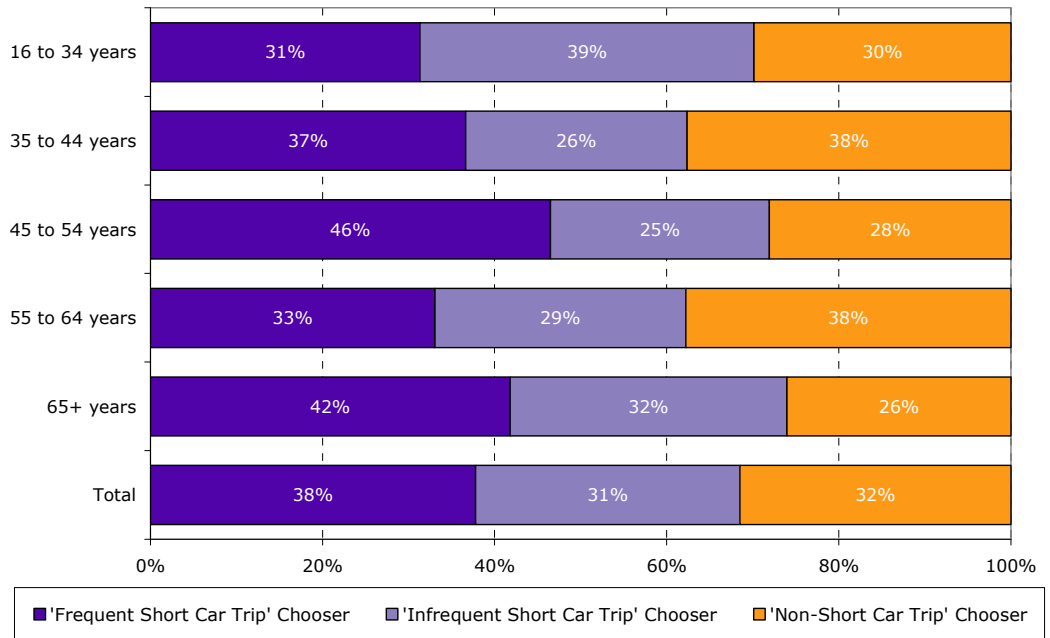
**Table 4.4 Kirkwall Adult Survey Data**

Category	Description	Frequency	%	Valid %
'short car trip' chooser	Frequent (at least once every two days)	252	33%	38%
'short car trip' chooser	infrequent (less than once every two days)	197	26%	30%
'non short car trip' chooser	travelled by car or taxi during once at least a month, but made no short car trips	184	24%	28%
'non short car trip' chooser	travel by car or taxi less than once a month	26	3%	4%
exclude	missing data, neighbouring zones or intrazonal outside Kirkwall Town	104	14%	
<b>Total</b>		<b>763</b>	<b>100%</b>	<b>100% (N=659)</b>

- 4.4.11 The survey variables relating to higher proportions of respondents choosing to use the car for very short trips within Kirkwall are detailed below. Additional relevant material is provided in Appendix F which contains sample sizes and analyses supporting the findings:
- **Females** (40%) are more likely to make 'frequent short car trips' compared to males (36%);
  - those respondents aged between **45 and 55 years** were more likely to make frequent short car trips than those of other age groups. For example 46% of the 45 to 54 years

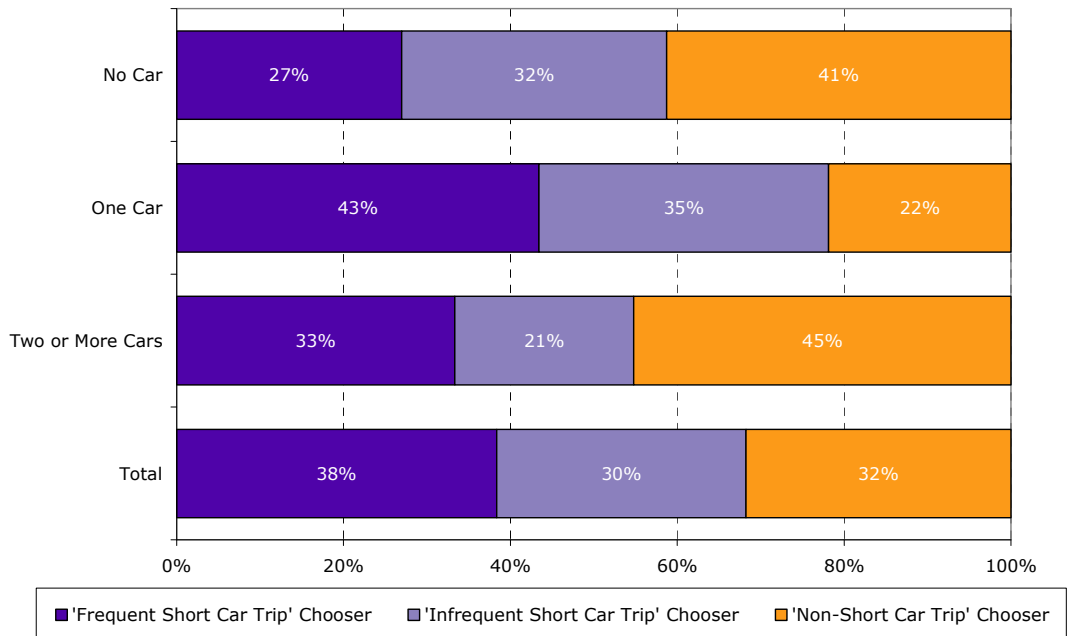


age group chose to travel frequently by car for a short trip, in contrast to 31% of those aged 16 to 34 (See Figure 5.11);



**Figure 4.10 Age and Short Car Trips**

- those from households with **one car** (43%) made more frequent short car trips than those with no car available (27%). (see Figure 4.12)

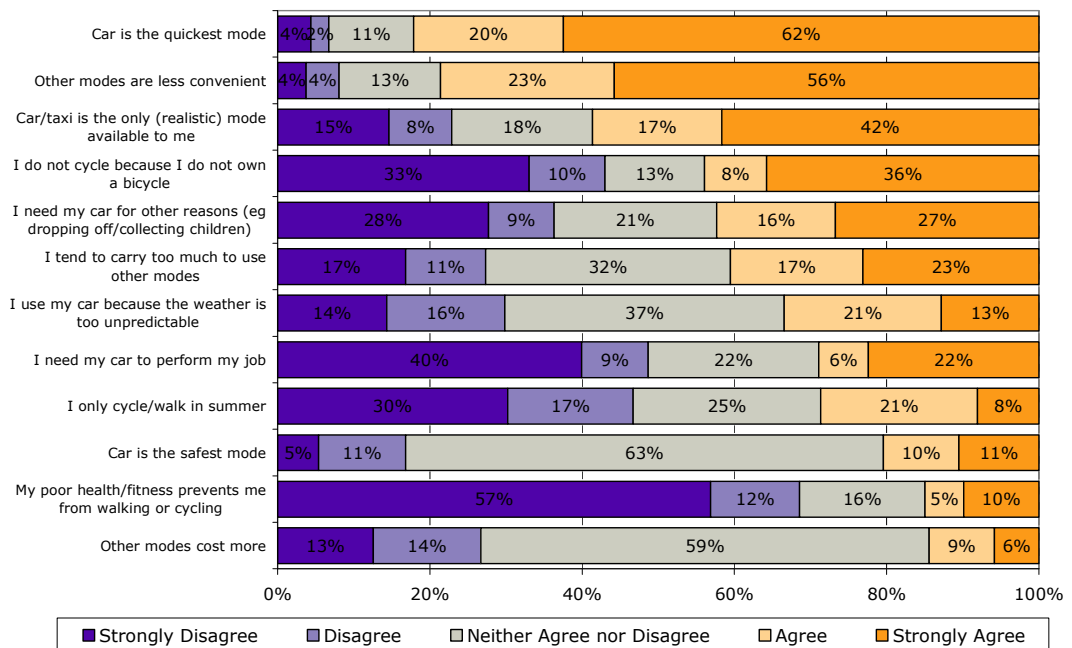


**Figure 4.11 Household Car Availability and Short Car Trips**

- as might be expected, those who categorise themselves as **'having a long-standing illness, health problem or disability that limits their travel choices'** (43%) have higher proportions of frequent short car trips than the rest of the population (38%);
- those who are in possession of a **blue parking concessions badge** and travel either as car drivers or passengers (47% frequent short car trips) had higher proportions of frequent short car trips than the rest of the population (38%); and
- those who are in possession of a **Concessionary Travel Pass** (42%) had higher proportions of frequent short car trips than the rest of the population (35%).

#### 4.5 Reasons for using Car Based Modes

4.5.1 Adults who said they had used a bus or taxi in the past month were asked to rate on a scale of 1 to 5 (where 1 is 'strongly disagree' and 5 is 'strongly agree') how far they agreed with a number of statements regarding their reasons for using a car-based mode. The results for the proportions agreeing or disagreeing with the statements are summarised in Figure 5.12. High proportions of Kirkwall residents agreed with the statements 'car is the quickest mode' (82% either 'strongly agreed' or 'agreed'); 'other modes are less convenient' (78%) and 'car/taxi is the only (realistic) mode available to me' (58%).



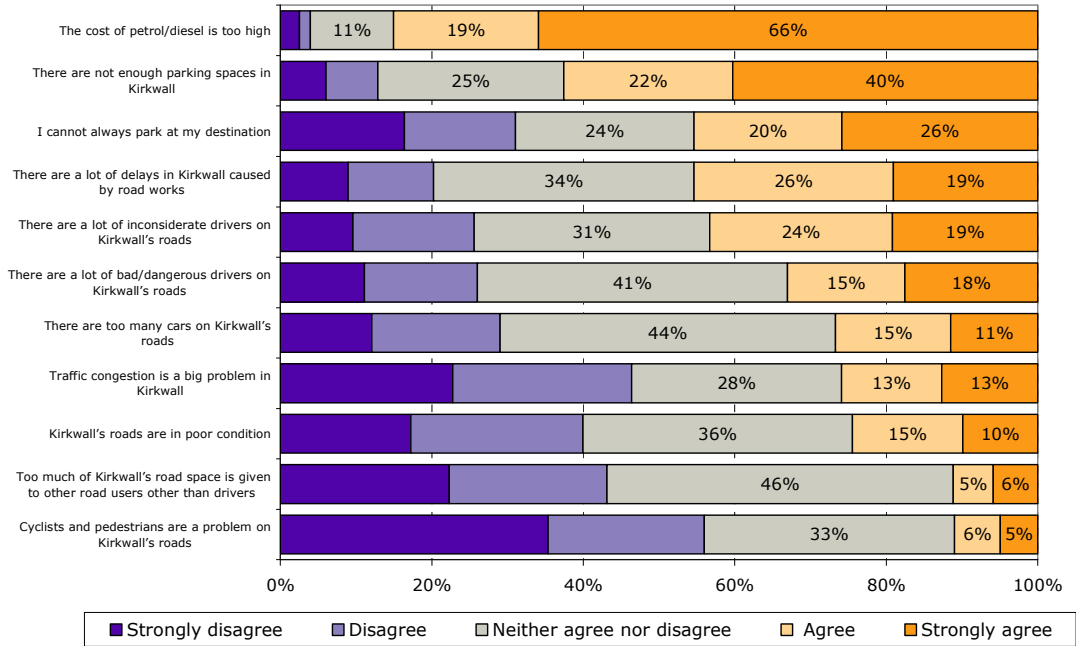
Base: Respondents who travel by car or taxi at least once a month.

Figure 4.12 Reasons for Using Car Based Modes

#### 4.6 Problems with using a Car

Survey respondents who said that they had used the car (or taxi) in the past month were asked how strongly they agreed or disagreed with a series of statements about the problems they face as a car user nowadays. The results for the proportion who agreed and disagreed

with the statements are summarised in Figure 4.13. Results indicate that high petrol prices and lack of parking were clearly issues that Kirkwall residents perceived as problematic. A high proportion of Kirkwall residents agreed with the statements 'the cost of petrol/diesel is too high (85% agreed) and 'there are not enough parking spaces in Kirkwall' (62% agreed).



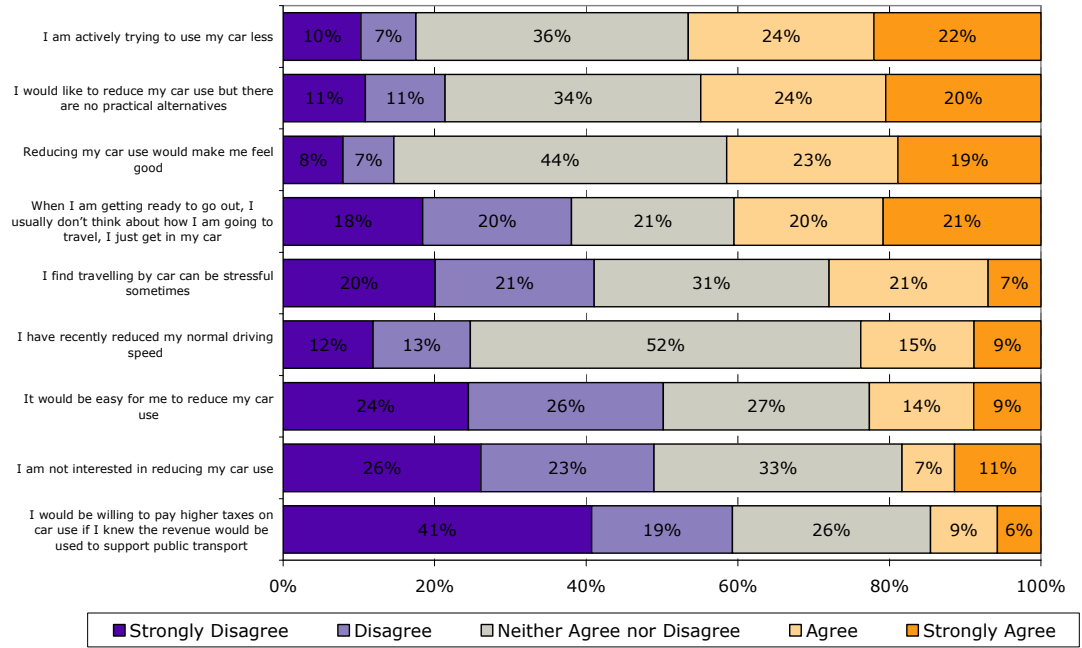
Base: Respondents who travel by car or taxi at least once a month.

**Figure 4.13 Problems Faced by Car Users**

#### 4.7 Attitudes Towards Car Use

##### Current Approach to Car Use

4.7.1 Survey respondents who said that they had used the car (or taxi) in the past month were asked how strongly they agreed or disagreed with a series of statements about their current approach to car use. The results for the proportion who agreed and disagreed with the statements are summarised in Figure 5.14. Almost half (47%) of respondents agreed with the statement 'I am actively trying to use my car less'.



Base: Respondents who travelled by car or taxi at least once a month.

**Figure 4.14 Current Approach to Car Use**

4.7.2 Respondents were asked to select a statement that best describes their aim for car use for everyday travel in Kirkwall over the next few months (See Table 4.5). Half described themselves as 'currently using the car frequently, but other factors do not allow me to reduce car usage at this point in time'. Almost a third (28%) have started to reduce their car use whenever possible.

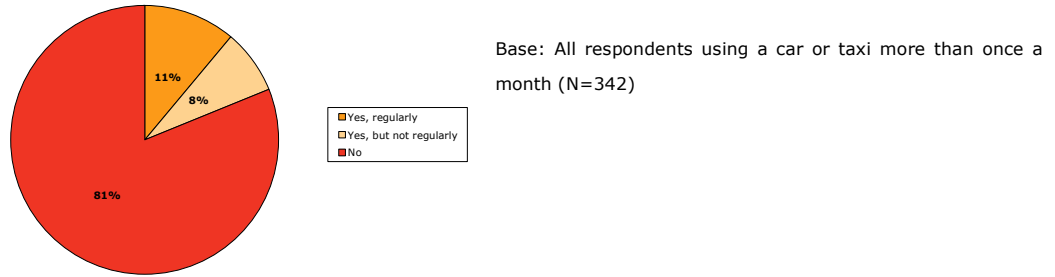
**Table 4.5 Current Aims for Everyday Car Use**

Aim for Car Use	%
I am currently using the car frequently but other factors do not allow me to reduce car usage at this point in time.	50%
I have started to reduce my car use whenever possible.	28%
I am currently using the car frequently but thinking of ways to reduce car usage. I am not sure how to reach this goal yet.	10%
I am currently using the car frequently. I am aware that there are ways to reduce my car usage but at the moment I am not interested in doing so.	6%
My aim is to reduce car usage. I know how to reach this goal, but have yet to put my plans into practice.	6%
<b>TOTAL</b>	<b>100%</b>

Base: All respondents using a car or taxi more than once a month (N=324)

**4.8 Car Sharing**

4.8.1 Respondents were asked if they were involved in any regular (ie once a week or more) car sharing arrangement, with people they did not live with, which involved at least part of the journey either to or from work or to and from an educational institution. Eighty-one percent did not car share, 8% car shared (but not regularly) and 11% regularly car shared (see Figure 4.15).



**Figure 4.15 Car Sharing**

4.8.2 All respondents were asked what measures would encourage them to car share more often. Over half of respondents (56% N=239) indicated that nothing would encourage them to car share more frequently. Of those who indicated that specific measures would encourage them, the most frequently cited responses included 'guaranteed ride home in an emergency/if let down by other car driver' (44%), 'help in finding car sharing partner' (37%) and a 'car sharing scheme organised by their employer' (30%) (See Table 4.6).

**Table 4.6 Measures to Encourage Car Sharing**

Car Sharing Measure	n	%
Guaranteed ride home in emergency/if let down	46	44%
Help in finding car share partners	39	37%
A car-sharing scheme organised by my employer	31	30%
Additional car parking spaces for car-sharers at my destination	26	25%
Cheaper car parking for car-sharers	21	20%
if fitted in with my work hours/shift patterns	7	7%
Other	3	3%

Multiple Response Question. Base: All respondents using a car or taxi more than once a month AND stated measure(s) that would encourage them to car share (N=105).

## 4.9 Transport Initiatives

### Public Transport

- 4.9.1 Respondents were asked about which measures would encourage them to use public transport more often. Almost a third (30% N=322) indicated that nothing would encourage them to use public transport more often. Measures which would encourage the others to use public transport, included 'more frequent services' (55%), 'more routes' (48%) and 'more conveniently-located bus stops' (41%) (See Table 4.7).

**Table 4.7 Measure to Encourage Public Transport Use**

Public Transport Measure	Sample Size	%
More frequent public transport	123	55%
New public transport routes	107	48%
More conveniently-located bus stops	92	41%
More reliable public transport	69	31%
Improved information at bus stops and Kirkwall Travel Centre	62	28%
Cheaper public transport	52	23%
Higher car fuel prices	40	18%
Quicker public transport	39	17%
Improved facilities at bus stops and Kirkwall Travel Centre	33	15%
Use of buses which are easier to get on and off	32	14%
A reduction in the number of parking spaces in Kirkwall	23	10%
An increase in the cost of parking in Kirkwall	17	8%
Other	13	6%

Multiple Response Question (N=255) Question Base: All respondents using a car or taxi more than once a month and stated measure(s) that would encourage them to use public transport

### Walking and Cycling

- 4.9.2 Respondents were asked which measures would encourage them to cycle more often. The responses indicated that for 41% (N=323) of the respondents, there was nothing that would encourage them to cycle more often. Of those who were receptive to encouragement, 71% thought that 'improved/safer cycle routes' would help and 31% thought that 'secure bike storage facilities at destination' would help (See Table 4.8).

**Table 4.8 Measures to Encourage Cycling**

Cycling Measure	Sample Size	%
Improved safer cycle routes	136	71%
Secure bike storage facilities at my destination	59	31%
Cheaper bicycles	55	29%
Showers and changing facilities at work	37	19%
Better weather	14	7%
Owning a bike	8	4%
Cycle training	7	4%
Better health level of fitness	7	4%
Cycle lanes cycle paths	2	1%
Help with cost of buying a bike	2	1%
Other	2	1%
Better driving	1	1%
Better roads	1	1%

Multiple Response Question (N=191) Base: All respondents using a car or taxi more than once a month and stated measure(s) that would encourage them to cycle

- 4.9.3 Respondents were asked which measures would encourage them to walk more often. The responses indicated that for 35% of the respondents, there was nothing that would encourage them to walk more often. Of those who were receptive to encouragement, 60% thought that 'more/better pavements' would help and 45% thought that 'road safety improvements' would help.



**Table 4.9 Measures to Encourage Walking**

Walking Measure	Sample Size	%
More/better pavements	118	60%
Road safety improvements (including pedestrian crossing facilities)	88	45%
Better street lighting	49	25%
Better weather	12	6%
Better level of fitness or health	9	5%
Fewer cars (including one-way streets or traffic free streets)	4	2%
More spare time	4	2%
More paths	2	1%
Other	9	5%

Multiple Response Question N=196. Base: All respondents using a car or taxi more than once a month and stated measure(s) that would encourage them to walk

- 4.9.4 All respondents to the main household survey were asked what they thought the top three benefits were to walking and cycling. Only 3% (N=318) stated there were no benefits. Of those who indicated benefits, the most frequently cited were 'better for my health' (90%), 'better for my fitness level' (65%), 'cheaper than other modes of travel' (48%) and 'better for the local environment' (29%).

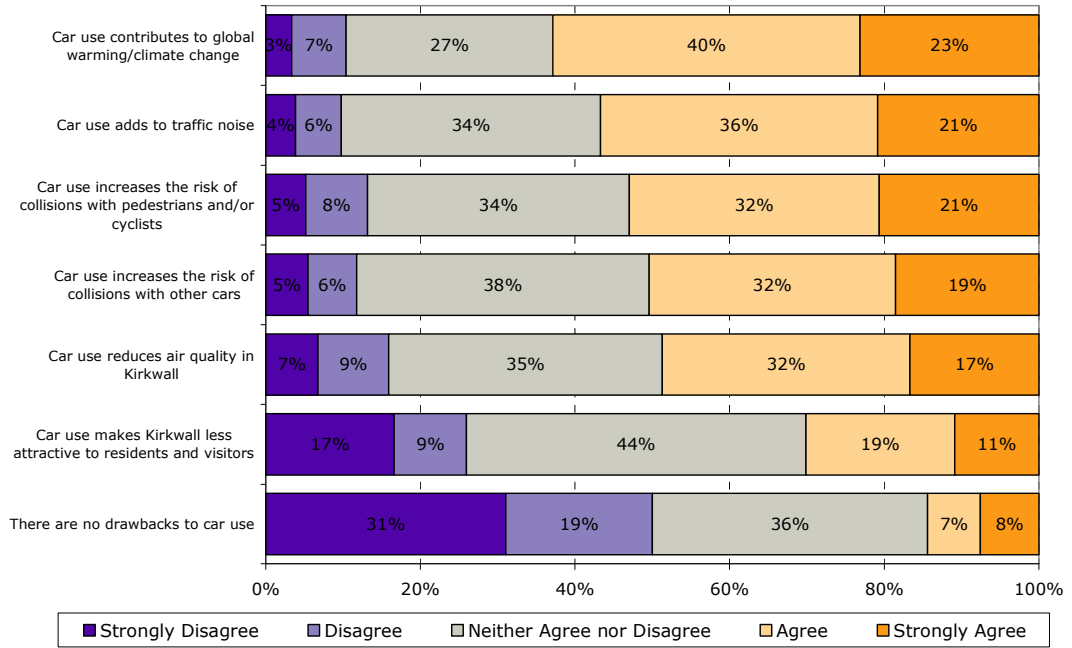
**Table 4.10 Walking and Cycling Benefits**

Benefit to walking and cycling	Number of Responses	%
Better for my health	278	90%
Better for my fitness level	202	65%
Cheaper than other modes of travel	148	48%
Better for the local environment	89	29%
Doesn't contribute to global warming/climate change	54	17%
More enjoyable than driving or using the bus	42	14%
Doesn't add to congestion	24	8%
Quicker than waiting for a bus	21	7%
Other	7	2%

Multiple Response Question (N=309) Base: All respondents who listed at least one benefit to walking/cycling

#### 4.10 Impact of Car Use

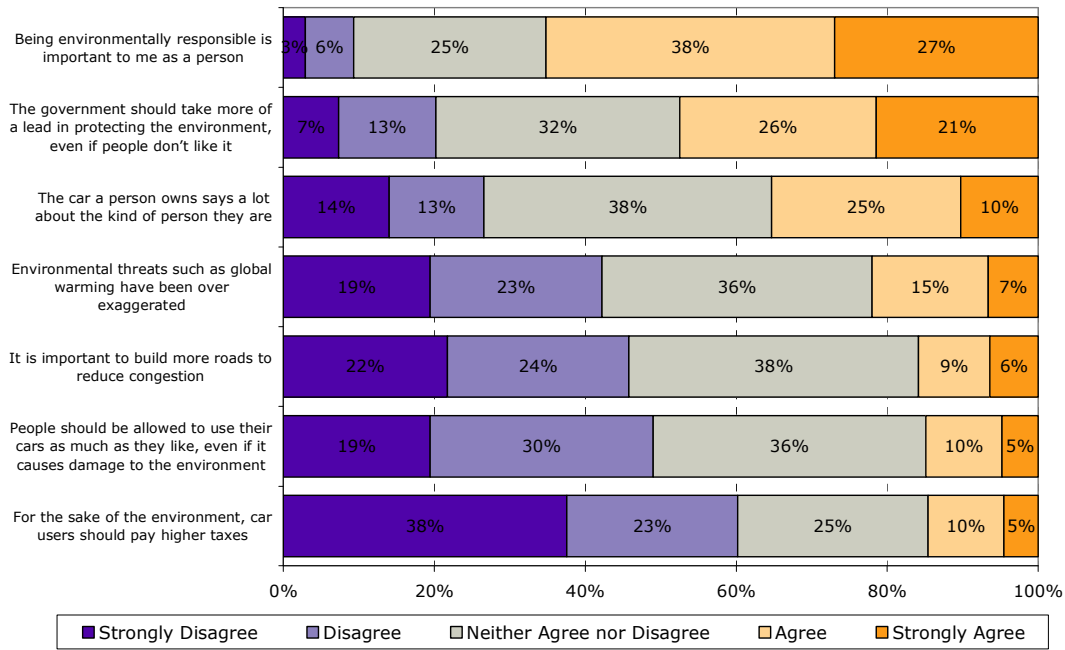
- 4.10.1 All respondents to the main household survey were asked to rate on a scale of 1 to 5 (where 1 is 'strongly disagree' and 5 is 'strongly agree') how far they agreed with a number of statements regarding the main drawbacks of car use in Kirkwall. The results for the proportions agreeing or disagreeing with the statements are summarised in Figure 5.16. High proportions of Kirkwall residents agreed with the statements 'car use contributes to global warming/climate change' (63%); 'car use adds to traffic noise' (57%) and 'car use increases the risk of collisions with pedestrians and/or cyclists' (53%).



Base: All Respondents

**Figure 4.16 Perceptions of Disbenefits of Car Use**

4.10.2 All respondents (main household) were asked to rate how far they agreed with a number of statements regarding the main drawbacks of car use in Kirkwall. The results for the proportions agreeing or disagreeing with the statements are summarised in Figure 4.17. High proportions of Kirkwall residents agreed with the statements that ‘being environmentally responsible is important to me as a person’ (65%) and ‘the government should take more of a lead in protecting the environment, even if people don’t like it’ (47%). In contrast, few agreed that ‘for the sake of the environment, car users should pay higher taxes’ (15%).



Base: All Respondents (Main Household Survey)

**Figure 4.17 Perception of Environmental Issues**

**4.11 Kirkwall Household Survey Summary**

- 4.11.1 Walking is the mode of choice for the vast majority of the Kirkwall population from non-car available households with 71% reporting that they walk every day. Less than half (48%) of respondents from one car households walk daily. Fewer respondents (34%) from two (or more) car households report walking everyday.
- 4.11.2 The proportions driving daily increases with increasing car ownership levels. No respondents from 'no car' households drive daily. Of those from households with one car available, a quarter (24%) drive daily. Forty-two percent of those from (two or more) car households report doing so.
- 4.11.3 Analysis considered 'frequent short trip car choosers' (ie any individuals who made more than 30 short car trips per month). Those from households with one car (43%) made more frequent short car trips than those with no car available (27%) or two or more cars available (33%). This could reflect the fact that the level of two car households is higher outside Kirkwall Town, so would be less likely to make a short car trip (ie second car purchased out of necessity), In addition a number of the one car trips could be 'escort' trip (eg parents providing a 'taxi' service).
- 4.11.4 The top ten generators of short car trips (ie less than 2km) include shopping trips to Zone G and to Zone H and commuting to jobs in Zone H, Zone G, Zone N.
- 4.11.5 Main findings from the household survey are summarised as follows:

- **reasons for using a car in Kirkwall:** high proportions agreed with statements 'car is the quickest mode (82%) and 'other modes are less convenient';
- **problems with using a car in Kirkwall:** high proportions of residents agreed that 'the cost of petrol/diesel is too high (85%) and 'there are not enough parking spaces in Kirkwall' (62%);
- **attitudes towards car use:** almost half (47%) agree with the statement 'I am actively trying to use my car less';
- **car sharing:** one in ten (11%) of residents currently car share regularly. The most frequently cited measures that would encourage more car sharing included 'guaranteed ride home in an emergency/if let down by other car driver', 'help in finding car sharing partner' (37%) and a 'car sharing scheme organised by their employer';
- **transport initiatives:** the most frequently cited measures that would encourage more sustainable mode choice include:
  - **walking:** 'more/better pavements' and 'road safety improvements', 'better street lighting';
  - **cycling:** 'improved/safer cycle routes', 'secure bike storage facilities at destination' 'cheaper bicycles'; and
  - **public transport** 'more frequent services', 'more routes', 'more conveniently located bus stops'.
- **impact of car use in Kirkwall:** high proportions of residents agreed with 'car use contributes to global warming/climate change' (63%) and 'car use adds to traffic noise' (57%).



# 5 Qualitative Research

## 5.1 Introduction

*"The sense that I'm entitled to use my car to drive to Spence's and get my paper and drive home again, that's the way its aye been. In Orkney we have an expression 'it's 'aye been' it's always been, there's a real sense of, history is really important here, it's the way my Mum did it and that's the way my Dad did it, they drove to Spence's for my paper, so it's aye been."* (Orkney Islands Councillor)

- 5.1.1 This chapter sets out the findings of consultation with the general public and transport stakeholders in Kirkwall. The aim of the research was to generate qualitative data to provide more detailed understanding of issues associated with car culture in Kirkwall. Overall, nine consultation sessions were held with the public, elected representatives and other stakeholders. The sessions are discussed in more detail in section 2 below. The interview and focus group schedules were partly informed by the results generated by the household survey, and were approved by the client. Sessions were held at a room in the King Street Hall. Sessions lasted between one and two hours and were held both during the day and in the evening. In addition, two members of the public – who were reluctant to attend a focus groups – participated via written replies to open ended questionnaire administered by email. Sessions were recorded using a digital voice recorder and transcribed. The data was then analysed to identify key themes and findings. 'Typical' quotes were then identified to illustrate the findings. The results are discussed below.

## 5.2 Consultation Sessions

### Public consultation

- 5.2.1 Focus group sessions were arranged with members of the general public, recruited by telephone and email using contact details provided on returned questionnaires. Four focus groups were organised with the general public. Although 4-6 participants were recruited for each group, actual attendance at each session ranged from between one and five, and one focus group was cancelled because no participants turned up at all. Lack of engagement is discussed in more detail in section 5.3.
- 5.2.2 In general, most age groups were included in the consultation, with the exception of young people (who would not have provided contact details on the questionnaire, so could not be recruited). Participants ranged from a young woman in her twenties to an octogenarian.
- 5.2.3 The majority of those consulted were car owners or had access to a car. Two participants lived in non car owning. One focus group participant was registered blind.
- 5.2.4 Although typical car users with no particular axe to grind were recruited for the focus groups, the sessions were predominantly populated by those with an interest in the issues; keen cyclists, walkers and others who are broadly supportive of the sustainable transport agenda.
- 5.2.5 As such, much of the data was generated by those who had certainly reflected on the issues previously, and it was observed that at least one of the groups was dominated by two



participants who had strong views on transport issues that were not necessarily shared by other participants or representative of the travelling public as a whole.

### Stakeholder consultation

- 5.2.6 Elected representatives, Kirkwall and Shapinsay Community Councils and other local transport stakeholders were invited to take part in the consultation by email and telephone. Interviews were arranged with four Orkney Islands Councillors (two Councillors individually and two together). All four Councillors sat on the Transport and Infrastructure Committee (including the Chair), while the other three were also elected representatives for Kirkwall wards.
- 5.2.7 A session was organised with Kirkwall Community Council. Two members of the Council attended, and provided very valuable – and frank – insights into transport issues in Kirkwall.
- 5.2.8 A session was also organised with two members of Shapinsay Community Council (both of whom travel regularly to Kirkwall). The Councillors were joined by a member of the general public who could only attend at this time.
- 5.2.9 A local stakeholder with a strong interest in cycling was interviewed.
- 5.2.10 A number of other stakeholders were approached, but, for a variety of reasons, were unable to take part in the research.

### 5.3 Recruitment Difficulties/ Consultation Fatigue

- 5.3.1 The main barrier encountered in the public consultation is also the first key finding; a lack of public engagement in the research. The team found it extremely difficult to recruit participants to take part in the focus groups. Even when people were recruited to take part in a focus group, between 40%-50% of those expected did not turn up (invariably without prior notice or explanation).
- 5.3.2 This lack of engagement with research into local transport issues is extremely surprising. Transport research in deep rural or island communities typically generates widespread local interest and participation. A number of reasons have been suggested to explain the apparent lack of interest which will be outlined below.

#### Cultural factors

- 5.3.3 People in Orkney are naturally diffident, private and reticent about turning up to a public event and speaking in front of others:

*"Orkadians can be quite shy people who don't like to come out and speak their mind, maybe don't have a lot of self confidence, it might be easier if you, I don't know, did a telephone interview?"* (Focus group participant)

#### Too much consultation

- 5.3.4 A common complaint – especially from Community Councillors – was that people in Kirkwall (and Orkney) were '*consultationed-out*' and that people are increasingly reluctant to engage in public consultation due to the volume of research that they have been subjected to.

"...one thing that is coming across very, very, strong is consultation sickness. And folk are, its part of, it's probably come from 20 years ago where such a thing didn't exist to being absolutely being consulted on everything" (Orkney Islands Councillor)

**Transport is not a key local issue**

- 5.3.5 A few participants suggested that transport is not an especially salient issue among the general public in Kirkwall, and that people would only turn up to such events if it was something that they felt especially strongly about.

*"No, the problem is in Orkney, there's not any congestion"* (Stakeholder interview)

*"I suppose that generally means that people are kind of happy to plod along"* (Focus group participant)

#### 5.4 Car Dependence/Culture

- 5.4.1 There is a high degree of car dependence in Kirkwall, and some participants perceive high levels of car ownership in Orkney.

*"I think we've got the highest car ownership in Britain."* (Orkney Islands Councillor)

##### Car culture

- 5.4.2 Opinion was split as to whether Kirkwall had a car culture. One possible explanation is that the phrase car culture meant different things to different people.

*"Orkney has a huge car culture. It's got more cars per head of population than I think any other local authority area"* (Orkney Islands Councillor)

*"By the nature of Orkney being a rural area the 'car culture' is certainly true of here – out of necessity in more remote parts... However I would say the same is true of people living in Kirkwall. Often I see people who live in the town driving to work in Kirkwall, no need, they could certainly walk"* (Email interviewee)

*"I don't know if there is a car culture in Orkney or not. People use their car because it's convenient to use their car and in Orkney..."* (Community Councillor)

*"...I don't imagine our make up is any different to the folk in Shetland or in the Western Isles or any sort of remote, wind swept places, I think we'll not be any different to the way people think and use their cars in those places either I imagine."* (Orkney Islands Councillor)

##### Car use as part of wider local culture

- 5.4.3 While it is open to question whether Kirkwall has a unique car culture (where motorists are more obviously attached to, or feel strongly about their vehicles), there was a strong consensus that there exists a long standing and deeply embedded tradition of motorists being able to drive to, and park directly outside, their destination (often a shop on the main street).

*"I would say so there's quite a lot of people that have to get right up to the shop door way with their car, they'll not walk any distance...."*(Focus group participant)

*'...And go slowly by the florists to read the funeral notices! I'm sure that's an indication of car culture isn't it?"* (Community Councillors)

*"I also think that there is a very strong, very strong attachment to the car and there always has been and it's to do with the relative lack of having a problem getting around anywhere compared to other places, it makes any minor inconvenience in terms of extra journey time or extra cost seem an enormous imposition and I think that's a huge, huge barrier to get over"* (Focus Group participant)

- 5.4.4 Culturally, a sense of place, identity and belonging is bound up in things like shared norms and expectations, local traditions and traditional ways of doing things, shared practices and rituals.
- 5.4.5 In Kirkwall, car use and travel behaviour is a part of this; the ability to drive along the main street, the ritual of driving down to Spence's on a Thursday to buy The Orcadian. People drive to park right outside where they want to go because they can, because they have always been able to, because – as the Councillor quoted at the top quote - that is the way *"it's aye been"*.
- 5.4.6 Such reliance on the car, and people's acceptance of vehicles on a narrow main shopping street is strongly embedded in the norms and expectations that characterise the local culture of Kirkwall and which help sustain sense of belonging to Kirkwall (as do other rituals such as the Ba or the County show)
- "...so I think it's a cultural thing, people are just used to driving in Orkney and driving right to the front door of their destination even if it's only a mile or two mile drive they'll do it."* (Stakeholder interviewee)
- 5.4.7 It can therefore be argued that Kirkwall does not have a unique car culture, just a unique culture characterised by unique norms and expectations.

### **Journey making and perception of distance**

- 5.4.8 Kirkwall is a relatively small town, only a mile or two across. But the psychology of living in a small town<sup>1</sup> (which may seem bigger to locals than it does to visitors), combined with such reliance on the car, even for short journeys into town, has acted to shape people's perception of distance and travel time. Because motorists are used to parking outside a shop (or at worst in an inexpensive car park behind it), a free car park located only five minutes walk away from the main street is virtually unused. What people living in larger towns and cities regard as a moderate walking distance is perceived as *"a long way"* in Kirkwall.
- "... three car parks on the periphery which in most cases would only mean people walking half a mile at the most, at the most! And even, there is still a wee bit of reluctance for that last half mile".*(Orkney Islands Councillor)
- "The attitude of people in Orkney is that they feel entitled to take their car to the door of where they are wanting to go, full stop. There is not such thing as going to a parking place and walk in."*(Orkney Islands Councillor)
- "Well if you think about the distances involved ...[if]...you're coming in from Wheland, you're coming in probably a mile to Broad Street... in Aberdeen ...if you do need to go into the centre of town, you have a three or four mile journey..."* (Orkney Islands Councillor)
- 5.4.9 Motorists in Kirkwall, similarly, have a perception of congestion, which might also be unique to those living in remote small towns.

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<sup>1</sup> The researcher grew up in Lerwick, which is a similar size to Kirkwall. Having subsequently lived in various big Scottish cities, he recognises that his perception of distance - and specifically what constitutes an acceptable walking distance - has changed substantially since he left Lerwick (which now seems a great deal smaller than it used to do).

*"... it's the psyche in Orkney, if you have to wait more than a minute at a junction then that's a long time."* (Stakeholder interviewee)

### Local culture: resistance to change

- 5.4.10 The Council's sustainable travel strategy will also need to take account of the fact that the people of Kirkwall are quite conservative.

*"People in Kirkwall are conservative with a small 'c'. And they hate change"* (Stakeholder interviewee)

*"We don't like change"* (Community Councillor)

### Local culture and policy challenges

- 5.4.11 The cultural norms and expectations noted above will distinguish Kirkwall from other Sustainable Travel Demonstration Town programme, providing a specific set of challenges and opportunities on Orkney Islands Council.
- 5.4.12 An inherent resistance to change will also constrain the Council's ability to deliver a radical set of sustainable transport policies.
- 5.4.13 Policy constrains and opportunities are discussed in more detail in section ?.

## 5.5 Key Transport Issues in Kirkwall

### The climate

- 5.5.1 The Orkney climate was frequently cited as reason why people did not walk and cycle more.

*"I think of course you're up against a certain problem here, that yes right it's a nice evening now and it's fine and you get three months of the year when it's not too bad but basically the Orkney weather is not conducive to cycling"* (Focus Group participant)

- 5.5.2 The weather (particularly in winter) shapes attitudes, deterring people from walking and cycling more and reinforcing 'cultural' car use and their justification for not using more sustainable modes.

- 5.5.3 *"... the variability of the weather I think is another issue, that you don't want to park too far away from where you're going because you never know what it's going to be like when you come out again!"* (Orkney Islands Councillor)

- 5.5.4 This accepted wisdom was contested by participants who were in the habit of walking or cycling all year round, and who questioned how much of an issue the climate really was. These participants stressed that it was perfectly possible to walk and cycle in winter if people wore the right clothes.

*"I have to walk rain, hale or shine, so you know you're doing it so you just get on with it. I don't rust and I dry out quite easily!"*(Focus Group participant)

- 5.5.5 Overall, however, the consensus was that the winter weather was a barrier to walking and cycling and that the wind was the most significant issue. The view that future walking and cycling routes need to be sheltered was expressed by a number of the participants.

*"...but one of the things which might be an unusual requirement in terms of a transport study round this part of the world, it's not just distance and gradient...it's shelter."* (Focus Group participant)

### **Parking and traffic management**

- 5.5.6 As was noted above, a central aspect of the travel culture of Kirkwall is the historical ability to park outside or close to the chosen destination in the town centre.

- 5.5.7 Compared to other towns and cities, the case could be made that Kirkwall has a significant amount of low and no cost parking close to the town centre. Nevertheless, a number of participants complained about parking difficulties (including one who prefers to travel by bike as a result).

*"You know that parking is extremely difficult in Kirkwall"* (Focus Group participant)

*"And parking is very difficult now. I mean it's a premium to get a parking place, that's another reason why I take the bike at the weekend, 'cause it's easier to park a bike than it is a car"* (Focus Group participant)

- 5.5.8 Again it can be argued that norms and expectations in Kirkwall are unique. It is possibly also the case that motorists believe that there are not enough parking places and that parking is too expensive (even if availability and cost is more generous than elsewhere).

- 5.5.9 In Kirkwall, the parking issue is partly related to the perception of distance within the town (as discussed in section 5.4). There is a substantial amount of free parking within 5 or 10 minutes walk from the main street that is little used, as people are reluctant to walk *"that last half mile"*.

- 5.5.10 Parking is certainly a salient issue in Kirkwall, and all the Councillors interviewed stressed how the Council continually strove to strike a – difficult - balance between supporting the viability of shops and business on Victoria and Main Street and managing traffic in the town centre.

*"The issue there I think is around the Council trying to achieve a policy which doesn't ruin the town by making so much parking centrally and yet makes the town centre the place to conveniently go in coarse weather."* (Orkney Islands Councillor)

- 5.5.11 Although parking is regarded as a significant local transport issue, parking is not unduly constrained in Kirkwall in order to sustain the main street. As such, the participant quoted above who travels by bike rather than car at the weekend because of a perceived lack of parking, is very much the exception.

### Pedestrianising the main street

- 5.5.12 Visitors to Kirkwall, Stromness and Lerwick are invariably surprised that the very narrow 'main streets' that characterise and dominate the respective town centres are not fully pedestrianised.
- 5.5.13 In Kirkwall the main street comprises Bridge Street, Albert Street and Victoria Street. For most of its length, the narrow street width is shared by pedestrians and vehicles. There are pavements on a short section of Albert Street opposite the Cathedral (which forms part of one of the main traffic routes), and there are currently partial vehicle restrictions between the hours of 11.00 and 15.00.
- 5.5.14 Arguments against full pedestrianisation include the needs of shopkeepers and traders (for deliveries), accessibility for the elderly and disabled and the tradition of being to drive to where one wants to go ("*It's aye been*").
- 5.5.15 Some participants also questioned the level of compliance with existing restrictions.

*"...if you are on business I think you can still go up [the main street], so folk, if challenged, they will say 'oh well I was at such and such a shop picking up something', which is a nonsense..."* (Orkney Islands Councillor)

- 5.5.16 Although concerns were expressed about traffic and pedestrians sharing a busy street space, there was little or no consensus among participants on future policy, or whether there should be full pedestrianisation, no restrictions on vehicles (which might slow down vehicles and improve road safety), or whether the status quo (partial vehicle restrictions) was the preferred approach.

*"Pedestrianisation – I think people are split on that, I would love it personally. I think it's ridiculous that a small picturesque town which relies heavily on tourism isn't pedestrianised. It would make for a much better experience of the town centre."* (Email interviewee)

*"I'm all for getting everybody together, you know they do it in the Netherlands? You've got traffic and everything mixed together and what happens is the traffic goes a lot slower and I'm all for that, so I don't believe in segregation in that respect"* (Orkney Islands Councillor)

*"...a lot could be done, not by banning cars cause that does impact on businesses and deliveries, but to make it a clear expectation that the space, a certain amount of space, pedestrians have a certain amount of priority..."* (Focus Group Participant)

### Local journey making black spots

- 5.5.17 Specific problem areas (either for pedestrians) were highlighted on a number of occasions during the constellation sessions.
- 5.5.18 Tankerness Lane is used by travelling west from the town centre to exit/bypass Victoria Street. The road is very narrow (with no pavement) at the junction. Due to space restrictions, a 'tapered' pavement starts a significant distance from Victoria Street.



*"Tankerness Lane I think is a very, dangerous place – a very, very dangerous place, a lot of pedestrians, a lot of cars going down there very, very fast and there's lots of obstacles."* (Community Councillor)

- 5.5.19 The lane posed particular problems for a blind participant.

*"That pavement [Tankerness Lane] is one, for me and [name of guide dog], is a nightmare because he gets very confused about why there is no pavement then all of a sudden there is a pavement."* (Focus Group Participant)

- 5.5.20 The junction between Clay Loan and Junction Road, and the citing of a pedestrian crossing close to the junction was also regarded as source of frustrations for motorists (congestion and delays) and pedestrians (safety).

*"You do get quite a few hot spots, prime times, bottom of Clay Loan and places like that, but even still you're never waiting longer than a few minutes, you think it's a long time, but it's certainly a lot more congested, it's getting more and more congested."* (Orkney Islands Councillor)

*"Clay Loan is the worst place for that, you stand there and you can't see any cars at all, at the place where you're meant to cross. It's just a wide junction"* (Focus Group Participant)

- 5.5.21 The junctions serving the three supermarkets on Pickaquoy Road was regarded as a significant issue for motorists; specifically difficulties in entering and exiting by car.

*"...that road is a disaster!"* (Focus Group Participant)

## 5.6 Existing Sustainable Transport Policies

### Cycling and walking

- 5.6.1 Many of the participants did acknowledge recent efforts by the Council to invest in walking and cycling infrastructure, many of those participating were cycling and walking activists, admittedly.

- 5.6.2 There were a number of positive comments regarding the new Peedie Sea and Hatston walking paths

*"But what a lot of folk have been really positive about that path at the Peedie Sea, and the other one that you don't see from the main road as well I think you just need to create an environment so folk can use and they'll use it with a little encouragement and maybe a little discouragement on the car front, but folk are actually getting there and using these things."* (Orkney Islands Councillor)

- 5.6.3 The Council had also received some positive feedback about their information on walking routes around Orkney.

*"...somebody in a similar role, surveying people, had been to Shetland and they were gushing about the information and the promotion of what we've got here compared to*

*Shetland. Shetland has the same bonnie areas and probably has quite a lot of paths but they probably don't promote it or sell it the same"* (Orkney Islands Councillor)

- 5.6.4 There was a significant amount of discussion about the design and location of existing cycle paths. There was a complaint made on more than one occasion that the paths had not been designed by cyclists, as the design of anti motorcycle barriers also made it difficult to use bicycles easily.

*"I find some of the bike tracks haven't been thought out by cyclists, some of them are too tight if you're an adult for the actual barriers, you've got to actually stop, you can't physically cycle round them..."* (Focus group participant)

- 5.6.5 There was also some criticism about the lack of dedicated routes and facilities for cyclists in the centre of Kirkwall, and of the design of the bike racks that had been provided in strategic locations (largely outside Kirkwall). *"There's no cycle routes anywhere in the centre of town..."* (Stakeholder interviewee)

*"[Bike stands], they are basically these big hoop things and you basically put your bike against it and if its windy it gets blown off, so what you really need is something that you can put your wheel into or something a bit more inventive cause the ones in the town again opposite the old job centre – one there – and I can't think if there's another one in the town"* (Stakeholder interviewee)

- 5.6.6 Investment in new cycle paths was perceived to be beneficial to both cyclists and walkers.

*"And if people are going to cycle a lot, you need to make provisions for that too, because where do they cycle? Do they cycle among the cars? Do they cycle on the pavements? And that's the kind of issue and should they really be cycling the wrong way up a one way street?? Which is what a lot of folk here on bikes do including some notable Councillors."* (Community Councillor)

### **Bus services**

- 5.6.7 Very few participants used the town bus service.

- 5.6.8 A key issue cited was the hail and ride system, which has the advantage that passengers can board and alight from the bus at their convenience. The corollary is that the route is not visibly defined by bus stops and shelters (a situation which is potentially exacerbated by perceived shortcomings of current bus timetable information).

*"I guess if you asked 90% of the population of Kirkwall whether they use the town bus and they said no and you said 'well why don't you use it', and they said 'well I don't even know what the route is!'"* (Orkney Islands Councillor)

*"We don't have bus stops in Kirkwall, which you've observed, we rely on a mechanism which allows people to jump out and put their hand out and it's very convenient and that's okay but it does mean that you don't have anything that identifies the route and I'm really sure that people miss out on the lack of information."* (Orkney Islands Councillor)

- 5.6.9 Perceived unreliability was also perceived to be a shortcoming.

*"We've got bus services round the town now, but they're kind of a hit or a miss, sometimes they turn up and sometimes they don't. There is a bus service around Craigie Field, but it's never been publicised and some days it doesn't appear – I think the driver forgets!! Which is kind of annoying for folk who are standing out in weather like this."* (Focus Group Participant)

- 5.6.10 The route did not suit some participants.

*"I did look at the bus route to see if I could use it but it just wasn't suitable, if you're going to end up walking half way, you might as well walk or cycle the whole way"* (Focus Group Participant)

- 5.6.11 The Community Transport dial-a-ride service, which serves Kirkwall, was widely regarded as a great success.

*"Dial-a-Bus...it was specifically for disabled people and older folk and trying to help people to travel independently or with their friends and relatives in an accessible manner, well it's grown hugely over the last four years, and it grew by probably 70% in that time. There's potential to break the barrier...between the elderly and disabled folk and the rest of the population and just make it a service, a demand responsive service that they can use, young folk can use"* (Orkney Islands Councillor)

### **Car Sharing**

- 5.6.12 Although participants could see the merits of a car share scheme, the potential drawbacks were also well recognised.

*"If you station yourselves somewhere on the outskirts of Kirkwall it is absolutely staggering to see the queues of cars coming out Kirkwall, coming in, in the morning and going out in the afternoon ....'hey look, why don't you car share? Two into one does go!"* (Orkney Islands Councillor)

*"...if you're say working in the Council offices and you, people might finish at a different time, or might have something else to do in the town or...so that's quite a problem."* (Community Councillor)

- 5.6.13 A number of participants were aware that the Council was already operating a car share scheme and several contributors suggested that the Council should focus on promoting and growing participation in its own scheme before encouraging other larger employers to adopt car sharing.

*"I think we can do a lot about improving publicity for the car share scheme, which is more than publicity for it, it's explaining it, cause people just don't understand it."* (Orkney Islands Councillor)

### **Attitude to health benefits of cycling and walking**

- 5.6.14 There was a consensus that people were aware of the health benefits associated with sustainable travel.

*"I think people are more aware of how to live healthily and eat healthily these days and it's certainly being drummed into them at school anyway."* (Focus Group Participant)

- 5.6.15 However, there was also scepticism about people were motivated to change their travel behaviour as a result.

*"A cycle scheme was launched here for Council employees but only a few took that up. That offered them the chance to get bikes very cheaply – if you don't take that up, I don't think you ever will consider the health benefits."* (Email interviewee)

#### **Attitudes to sustainable transport and the environment**

- 5.6.16 Although all the participants were aware of the link between car use and climate change emissions, there was a strong consensus that it did not impact on how much people used their vehicles locally.

*"... sometimes people will think about the long term consequences and other times they'll just say 'ach, well I need my car, to hang!'"* (Focus Group Participant)

- 5.6.17 There was also a perception that many motorists did not think that taking responsibility for reducing emissions was a priority for people in Orkney (possibly because air pollution is not an issue).

*"I think people think that because the air is so fresh here it's not a concern but it is!"* (Focus Group Participant)

### **5.7 Kirkwall as a Sustainable Travel Demonstration Town**

#### **Kirkwall's sustainable transport demonstration town status**

- 5.7.1 As might be expected, the award of travel demonstration town status to Kirkwall elicited a range of opinion among those consulted, with attitudes ranging from guarded optimism to extreme scepticism.

- 5.7.2 There was more of a consensus over the scale of the task facing the Council in trying to discourage car use in favour of more sustainable modes.

*"I think I'm realistic rather than optimistic. I think it's going to be a big task and I don't think it's a three year task, but I do think that we can make measurable improvements, but I don't think they'll be vast, we're not going to reverse many decades of reliance on cars as the primary form of moving bodies around"* (Orkney Island Councillor)

*"There's got to be an incentive, folks have got to see something that will benefit them, not that folk aren't concerned with the issues of climate change and all that kind of things and the cost of fuel, but I think people have got to see a real benefit to themselves."* (Focus group participant)

*"How successful? I think...it has got to come a step change from the people themselves, some people they are already attempting it, but for others it's going to have to hit them really hard before they'll actually stop moaning about anything that happens or any changes. I'm sorry I'm sounding quite pessimistic!"* (Focus group participant)

*"I must admit I laughed when they read out the list on the news, what is Kirkwall doing applying for this?" (Focus group participant)*

### **Sustainable travel, local culture and identity**

5.7.3 It was suggested above that while Kirkwall might not have a car culture, the norms and expectations associated with local travel patterns and behaviour are an element of local cultural identity.

5.7.4 In term of developing sustainable transport policies, the Council will need to be cautious about the confronting the parking-near-a-destination issue. Similarly, some sustainable policies might be seen as too 'radical' for a conservative community.

*"Surely they'll be making us less like Orkney and more like somewhere on the mainland, that's why I don't like all these new bigger pedestrian/cycle routes going all over the place, it's ruining the character if they have too many of those, we'll just be like everywhere else."* (Focus group participant)

5.7.5 There might, however, be more opportunity to reshape people's perceptions of what is an acceptable walking distance and their 'mental maps' of Kirkwall, promoting the idea that most destinations in Kirkwall are within easy and quick walking and cycling distance.

*"Nothing is really that far away, even if you're going from one side of Kirkwall to the other, you know (as long as you've got)...the time and the weather!"* (Focus group participant)

### **Effective public engagement**

5.7.6 Given the relationship between cultural identity and local travel behaviour, the Council therefore will have to think carefully how it sells the sustainable travel towns initiative.

5.7.7 This particular consultation exercise was hampered by a lack of engagement from the public, and participants also recognised that effective and creative public engagement is going to be critical if the Council is going to be successful in changing travel behaviour.

*"Well it entirely depends on how they do it through the usual means of evening public meeting and adverts in the paper and the usual useless that are proved again and again not to work they just won't manage it at all..."* (Focus group participant)

*"Yeah well and we've also got the problem of...I find just now...there is a lot of talking and not much action and I think it's the action that may actually help, but how much can you keep it on the forefront, because whenever it slips on to the back burner..."* (Focus group participant)

### **The role of Orkney Islands Council**

5.7.8 As the biggest employer in Kirkwall, many participants argued strongly that Orkney Islands Council had to lead by example if it was serious about encouraging other organisations and individuals to change their travel behaviour.

- 5.7.9 Although some participants acknowledged that the Council had introduced some initiatives to encourage employees to cycle and car sharing, the perception was that these schemes were not effectively publicised and that the Council could do a great deal more to discourage car use.

*"I don't know whether the Council's got it (car share scheme), but it would be a good idea if it did cause it would save the parking."* (Community Councillor)

*"I think the Council should lead by example!"* (Focus group participant)

*"It's do as I tell you, and not as I do, I think!"* (Community Councillor)

### 5.8 Summary

- 5.8.1 The qualitative consultation helps provide more detailed understanding of cultural issues associated with car use in Kirkwall. The researchers had difficulty in persuading the public (and some stakeholders) to engage in the consultation. Potential explanation include the private and reserved nature of Orcadians, consultation fatigue, and the fact that transport is not a particularly salient local issue.
- 5.8.2 While Kirkwall might not have a car culture as such, local travel behaviour does play a role in sustaining local cultural identity. The practice of driving to and parking outside a destination (on the main street, for example) is strongly embedded in the norms and expectations shared by people from Kirkwall. This is well illustrated in the observation: "it's aye been".
- 5.8.3 The people of Kirkwall also have a distinctive perception of distance and travel time. What people living in larger towns and cities might regard as a moderate walking distance is perceived as too far to walk in Kirkwall.
- 5.8.4 The Orkney climate was frequently cited as reason why people did not walk and cycle more, particularly in winter. Parking is perceived as a key transport issue in Kirkwall. Many participants stated that Kirkwall has a parking problem. There was no consensus over whether the main street should be fully pedestrianised.
- 5.8.5 Very few participants used the town bus service. Lack of awareness of service times and the hail and ride route, and perceived unreliability, were cited as issues.
- 5.8.6 Opinion on Kirkwall's sustainable travel demonstration town status ranged from guarded optimism to extreme skepticism.
- 5.8.7 Given the link between some travel practices and local cultural identity, caution will need to be exercised when confronting some 'traditional' travel practices. However, there might be more opportunity to reprogram people's perceptions of what is an acceptable walking distance within Kirkwall.
- 5.8.8 Effective and creative public engagement was regarded as critical to changing local travel behaviour. In encouraging more sustainable travel behaviour, Orkney Islands Council has to lead by example.





## 6 Summary and Conclusions

### 6.1 Introduction

- 6.1.1 This investigation into car culture in Kirkwall was undertaken to establish the cultural reasons for Kirkwall's residents' attachment to their cars and to provide an understanding of what might be required to produce a behavioural change in Kirkwall, leading to a greater use of sustainable modes. In this chapter we draw together conclusions from this research which may help to inform and the Sustainable Travel Demonstration Town Project Initiatives and Orkney Islands Councils transport policies and strategies.
- 6.1.2 There are key factors to take into account when analysing the car usage in Kirkwall. These are car availability, journey purpose, distances travelled, availability of public transport and the weather. The recommendations below explore measures to encourage modal shift, including improvements to alternatives (eg walking/cycling and public transport), making car travel less attractive, marketing and soft transport policy measures.

### 6.2 Awareness and Attitudes

- 6.2.1 The research investigated the barriers preventing car travellers from shifting to bus, walking or cycling and found that current car travel choices are based on real and perceived benefits in terms of time, comfort and convenience. For example, high proportions of Kirkwall residents agreed with the statements 'car is the quickest mode' (82% agreed) and 'other modes are less convenient' (78%).
- 6.2.2 The main problems perceived with using a car in Kirkwall are 'the cost of petrol/diesel is too high (85% agreed ) and there are not enough parking spaces in Kirkwall (62%) rather than congestion being cited as an issue. Respondents were very aware of the negative impacts of car use in Kirkwall. High proportions of residents agreed that 'car use contributes to global warming/climate change' (63%) and 'car use adds to traffic noise' (57%).
- 6.2.3 There are mixed attitudes among car users in relation to car use. Almost half (47%) agreed with the statement 'I am actively trying to use my car less', 44% of car users say they would like to reduce their car use but that there are no practical alternatives but a sizeable minority (18%) say they are not interested in reducing their car use.

### 6.3 Improvements to public transport

- 6.3.1 The majority of Kirkwall residents do not use the local bus service regularly (SHS indicates that 92% of residents have not used the bus service in the previous month). The research indicated a number of measures which would encourage public transport use, including 'more frequent services', 'more routes' and 'more conveniently-located bus stops'.
- 6.3.2 SHS Travel Diary Analysis (1999 to 2006) indicated a relatively high proportion of non-sustainable trips originating from South East of Kirkwall (including the airport). The recent proposal to introduce bus services between the airport and Kirkwall will contribute to tackling this particular issue.

## 6 Summary and Conclusions

- 6.3.3 Improvements to public transport to/from/within Kirkwall are unlikely to achieve large proportions of modal shift at a reasonable cost. It would be difficult to provide adequate scheduled public transport to scattered rural populations outside Kirkwall town. For travel within the town, in practice, it would often be quicker for able-bodied people rather than take the bus.
- 6.3.4 However, there may be scope for improving services which provide a social inclusion element such as the dial-a-ride service. The Community Transport dial-a-ride service was widely regarded by focus group participants as a great success. Our Kirkwall Household Survey indicated that 8% of the Kirkwall population, with no car available reported using the dial-a-bus service at least once a week and 17% indicated that they used it at least once a month. There were suggestions that the Council should expand the dial-a-ride service.

### 6.4 Improvements to walking/cycling routes

- 6.4.1 The research supports improved walking infrastructure combined with targeted marketing to encourage walking, instead of car use, for short trips in Kirkwall town. Kirkwall's Sustainable Travel Demonstration Project includes a number of initiatives to encourage walking and cycling. For example, the Towns Infrastructure Project includes schemes to complete an active travel network across the town linking the core trip attractors and main housing areas. Focus group participants acknowledged the efforts made by the council already (eg positive comments regarding new Peedie Sea and Haston walking paths).
- 6.4.2 The Household Survey indicated that 'more/better pavements' and 'road safety improvements' would encourage respondents to walk more often. In addition, the survey indicated that 'improved/safer cycle routes' and 'secure bike storage facilities destination' would help encourage respondents to cycle more often.
- 6.4.3 The focus groups identified local 'black spots' for pedestrians eg Tankerness Lane; junction between Clay Loan and Junction Road; junctions serving the three supermarkets. Concerns were expressed about traffic and pedestrians sharing the busy main street, but there was no consensus over whether the main street should be fully pedestrianised. In terms of measures to encourage cycling, focus group participants suggested dedicated cycle routes/facilities in the centre of Kirkwall and that investment in new cycle paths perceived as beneficial to both cyclists and walkers. However, the consensus throughout the research was that the weather (particularly in winter) was an issue and sheltered routes would encourage walking and cycling.

### 6.5 Making car travel less attractive

- 6.5.1 There are numerous policy measures which would decrease the attractiveness of the car trip. These include:
- **increasing car in-vehicle time by reallocation of road space to give more priority to other road users:** eg pedestrianising the main street;
  - **increasing parking costs (either by restricting availability or increasing parking charges or both):** Although parking is regarded as a significant local issue it does not appear to be unduly constrained throughout Kirkwall. Findings from the

focus group discussions suggested that in Kirkwall the parking issue is related to perceptions of distance. Substantial amounts of free parking is available within 5 or 10 minutes from the main street that is not used as there is a reluctance to walk from it to the town centre. Results from the Kirkwall Household Survey confirm that there is a perception of lack of parking. A high proportion agreed with the statements 'there are not enough parking spaces in Kirkwall (62% agreed) and 'I cannot always park at my destination' (46%);

- **increasing vehicle operating costs, for example by increasing the cost of fuel:** The cost of fuel is clearly an issue affecting Kirkwall residents with the majority of survey respondents agreeing that 'the cost of petrol/diesel is too high' (85% agreed). In addition, increasing fuel process is a rather 'blunt instrument' for achieving modal shift and tends to have more of an impact on travellers who don't have a realistic alternative such as those with disabilities and/or living in rural areas. This approach is therefore not recommended.

### 6.6 Marketing Campaigns

- 6.6.1 Kirkwall's Sustainable Travel Demonstration Project includes an initiative to promote smarter travel choices in Kirkwall – this is a promotional strategy including travel maps and personalised travel planning (PTP).
- 6.6.2 Discussions as part of the focus groups indicated that there may be opportunity to alter peoples' current perceptions that most destinations in Kirkwall are not within easy and quick walking and cycling distance. Publicity campaigns that answer the 'How Do I ? question may therefore remove one of the barriers to change. Web sites such as 'Walk It' calculate walk route and journey times and might help address residents' perceptions.
- 6.6.3 Travel awareness campaigns targeted towards specific sub-groups depending on their characteristics and circumstances may have more of an impact than general campaigns. The current research suggested the proportions sustainable trips being made is much higher amongst specific sub-groups (eg low car ownership/low income, young people etc) and these sub-groups may benefit most from travel awareness campaigns.
- 6.6.4 The Household Survey indicates that Kirkwall residents are fully aware the negative impacts of car use and the health benefits to walking and cycling Any travel awareness campaign should therefore focus on offering practical advice rather than raising awareness.

### 6.7 Car Availability

- 6.7.1 There was a perception amongst several focus group participants that Kirkwall has a very high level of car ownership. However, Kirkwall, with a current household car availability of 66% is within the mid range of the twelve 'benchmark' Scottish Remote Small Town Communities considered.
- 6.7.2 Only around 30% of trips made by adults from non-car owning households in Kirkwall are made by car. The purchase of a single car within a household increases the use of car based travel (75% for households with more than 1 adult and to 77% in single adult households). This rises to 91% for adults from households with two or more cars.

## 6 Summary and Conclusions

- 6.7.3 Mode choice behaviour is therefore likely to vary in direct response to variations in car ownership and hence any policy which affects car ownership will automatically have an impact on modal shift. For example, policies which discourage car ownership (eg car sharing clubs, higher car ownership costs, workplace parking charges etc) are likely to increase the use of other modes by the affected residents. This effect is likely to be most marked where it affects the decisions of households to choose between car owning and non-car owning status, but will also be significant where households choose between owning one car and two or more cars.
- 6.7.4 However, the disadvantages resulting from restricting individual's access to destinations where the non-car alternatives are not realistic are likely to outweigh the benefits of the reduced car use. A policy which attempts to encourage households from purchasing a car is therefore likely to be unpopular. However, the subsequent choice of whether or not a household purchases a second car tends to have less impact on accessibility and may be an area where policy might be targeted with fewer adverse effects on accessibility. There may be merit in considering policies which discourage households moving from one car to two car status.

### 6.8 Policy measures and journey type

- 6.8.1 Different travel behaviour and attitudes towards modes of transport are evident for different journey types. 'Supermarket shopping' is the most car dependent journey type and 'evenings out for leisure purposes' is the least car dependent.
- 6.8.2 Analysis of the Kirkwall Household Survey identified short car trips where walking was a realistic alternative. These were identified as trips less than 2km in length. The majority of short car trips were for shopping (39%) or commuting (35%), 23% were for 'other' purposes and only 3% were business trips. Shopping and commuting trips are considered in turn below as it is here where policies to alter mode choice are likely to have most impact.

#### Shopping

- 6.8.3 Analysis (SHS 1999 to 2006) indicated that the majority of Kirkwall residents always use the car for supermarket shopping (90%). Fewer respondents always use the car for town centre shopping (62%) or shopping for small amounts of food (49%). SHS respondents were also asked how easy they would find it to not use the car for accessing the shops. Most respondents claimed they would find it difficult to not use the car for supermarket shopping (82% fairly difficult or very difficult), town centre shopping (80%) and shopping for small amounts of food (65%).
- 6.8.4 The research suggests that even when the distance between home and the shops is very short (eg less than 2km) high volumes of residents still choose to drive instead of walk. Zone G (West of the Town) and Zone H (Town Centre) attract the highest volumes of short (ie less than 2km) from home car trips. Almost two thirds (63%) of trips to zone G are associated with shopping. Similarly, over half (55%) of trips to zone H are associated with shopping
- 6.8.5 High stated car dependence of shoppers is unsurprising. However, policy measures to reduce the number of shopping trips made by car could include encouraging teleshopping

and/or home delivery (providing the subsequent delivery vehicle is more efficient than the corresponding set of car trips it replaces).

### Commuting

6.8.6 This section considers the available travel to work data (eg Census and Staff travel surveys), Workplace Travel Plans and associated issues (eg car sharing and reducing the need to travel):

- **Census (2001)** Census Travel to Work data indicated that Kirkwall residents were not significantly more likely to commute using their cars compared to other similar communities. Kirkwall ranked 4<sup>th</sup> lowest (out of 13 Comparable Scottish Towns) in terms of percentage of residents driving to work. In addition, Kirkwall residents had the highest percentage of active travel (walking or cycling) commuting trips (39%). Although Kirkwall compares favourably, there is still scope to maintain and/or improve on this. Less than half of Kirkwall residents commute as car driver (48%). However, commuters working in Kirkwall have high proportions of car mode share (58%). This suggests that many of those working and living in Kirkwall are already commuting by sustainable means and it is those residing outside Kirkwall and accessing jobs in the town that are most likely to travel by car.
- **Staff Travel Surveys** - Findings from staff travel surveys indicate that 57% of council employees travel to work as a lone driver and 66% of NHS Orkney employees drive a car to work.
- **Workplace Travel Plans** - A number of employer travel plans exist within the Kirkwall Area. These include the two main employers (Orkney Islands Council and NHS Orkney) as well as Royal Society of Protection of Birds, Highlands and Islands Enterprise and Kirkwall Airport and there is evidence to suggest that some of these are not effective.
- **Car Sharing** The Orkney Council staff survey indicated that over a quarter (26%) car share on their way to work (either with someone from the council or someone from another organisation). Encouragingly, of those who did not currently car share, over half (52%) would be prepared to do so. A number of focus group participants were aware that the council was already operating a car sharing scheme and that the council should focus on promoting and growing participation in its own scheme before encouraging other large employers to adopt car sharing. There was a general perception that the Council should lead by example. As part of the Kirkwall Household Survey, respondents were asked if they were involved in any regular (ie once a week or more) car sharing arrangements as part of their journey to/from work/education. 11% regularly car shared and 8% did so occasionally. The most frequently cited measure to encourage people to car share more often include guaranteed ride home in emergency/if let down, help finding car share partners or a scheme organised by the employer.
- **Reducing the Need to Travel** - Policies that reduce the need to travel to/from work or in the course of work could include encouraging home working, video conferencing and internet use. Census 2001 data shows that in total 7% of Kirkwall residents (age 16 to 74 in employment) work from home. The highest proportions of home workers live in Kirkwall's rural hinterland, presumably due in part to the high proportion of farming households in these areas.

### School Travel

- 6.8.7 There is considerable policy interest in travel to school, covering issues associated with the health and social benefits of walking and safety implications of alternative modes. School travel plans have been developed for North Walls Community School and St Andrews Primary School and there is a School Travel Co-ordinator at Orkney Islands Council. It is worth noting that the St Andrews School travel plan does not recommend that pupils walk or cycle to school for numerous reasons (eg class B roads, no pavements or footpaths; no cycle tracks; motorists driving fast to work and strong winds and rainy weather).
- 6.8.8 Although initiatives such as school travel plans may encourage a modal shift among school children, it is worth noting that this will not necessarily result in a reduction in car use as many of these cars may still be used at the same time for trips to work.

### 6.9 Barriers and Opportunities for Change

- 6.9.1 Car dependence can be structural (people are dependent on their cars because they have no viable alternatives) or conscious (people rely on cars, but could realistically undertake their journeys by other modes). Clearly, efforts to encourage modal shift in Kirkwall should be focused on the latter type of dependence.
- 6.9.2 Research indicates change is more likely to occur if the cost of change (economic and practical) is less than the following factors; 'shared dissatisfaction with status quo'; 'a shared vision, aims - what is in it for us' and 'knowledge about the first practical steps'. There are very few constraints to car use in Kirkwall to act as a 'catalyst' for change and this will undoubtedly make it more challenging for travel awareness campaigns to capture the interest of residents.
- 6.9.3 While it is open to question whether Kirkwall has a unique car culture (where motorists are more obviously attracted to, or feel strongly about their vehicles), the research findings suggest that there exists a long standing and deeply embedded tradition of motorists being able to drive to, and park directly outside, their destination. Evidence from the quantitative Survey suggests that Kirkwall residents do not have strong opinions against other modes.
- 6.9.4 The cultural norms and expectations (eg being able to drive to and park at destinations) will distinguish Kirkwall from other Sustainable Travel Demonstration Town Programme, providing a specific set of challenges and opportunities for Orkney Islands Council. The focus group research suggested that there is an inherent resistance to change which will constrain the Council's ability to deliver a radical set of transport policies. In addition, given the link between some travel practices and local cultural identity, caution will need to be exercised when confronting some 'traditional' travel practices.

### 6.10 Recommendations

- 6.10.1 For reasons of practicality and logistics, it is suggested the Smarter Travel initiatives implemented be concentrated around the urban area of Kirkwall. This tactic is likely to cover the majority of the population and create the 'critical mass' that is required to implement effective Smarter Travel delivery and achieve modal shift. This will target the audience within the study area with the highest possibility to change to a different mode.

- 6.10.2 It is recommended that the following 'Smarter Choices' methods would be the most effective to apply in the urban area. These include a range of measures such as:

**Core Programmes:**

- More effective workplace-based travel plans;  
*This provides the opportunity to revitalize and re market the Council's own travel plan to be seen to be taking a lead in project. In addition the existing travel plans should be revitalized and effective processes put in place to ensure they are active and are promoting modal choice. They should be reviewed regularly and the council could set up effective monitoring and management processes to ensure their effectiveness. Guidelines, policies and incentives could also be created by the project to ensure future travel plans are implemented effectively.*
- personalised travel planning;  
*The core residential population of urban area provides a great opportunity for a personalised travel planning project focussing on the promotion of walking, cycling and car sharing for particularly for short interurban trips. This would need to be supported by some basic pedestrian and cycle infrastructure in this area.*
- travel awareness campaigns;  
*Travel awareness campaigns should also be implemented to support these interventions. They are more likely to succeed if they predispose people's perceptions of what is an acceptable walking and distance within Kirkwall.*

**Additional Activities:**

- teleworking, online shopping;  
*These options also provide some more limited opportunity and could be promoted through the work place travel plans and personalised travel planning projects*
- and car sharing schemes designed to reduce overall levels of car use;  
*This could be made available to the general public but a Kirkwell wide car share database could also be effectively promoted via the WTP and PTP projects*

**Supporting Infrastructure:**

- In addition, improved walking infrastructure combined with marketing would encourage walking, instead of car use, for short trips in Kirkwall town.

- 6.10.3 A sustainable transport future for Kirkwall requires that the car culture be challenged. Changes to the road environment will not, of themselves succeed without a radical change in public attitudes. Effective and creative public engagement can be regarded as critical to changing local travel behavior.

# Appendix A – Characteristics and Attitudes of Kirkwall Residents (SHS)



SHS analysis was undertaken to look at the characteristics and attitudes of Kirkwall residents. The Tables provided in this Appendix provide details of sample sizes and proportions for topics considered: Car travel; Public transport; Cycling; and travel-to-work:

- Table A1: Frequency of driving;
- Table A2: Frequency of driving in congested traffic;
- Table A3: Walking time to the nearest bus stop;
- Table A4: Frequency of bus services at nearest stop;
- Table A5: Views on convenience of public transport;
- Table A6: Use of local bus service;
- Table A7: Any bicycles for use by adults in the household;
- Table A8: Usual method of travel to work.
- Table A9: Mode of travel and journey purpose

**Table A 1 Frequency of driving**

Frequency of Driving	Proportion
Every day	69%
at least three times a week	14%
once or twice a week	8%
at least 2 or 3 times a month	1%
at least once a month	0%
less than once a month	2%
Never	6%
Total	<b>100% (N=314)</b>

**Table A 2 Frequency of driving in congested traffic**

Frequency of Driving	Proportion
Every day	4%
Once or twice a week	4%
At least once a month	0%
Less than once a month	50%
Never	43%
Total	100% N=148

Base: Kirkwall residents who drove at least once a week

**Table A 3: Walking time to the nearest bus stop**

Time it would take to walk to the nearest bus stop	Proportion
3 minutes or less	36%
4 to 6 minutes	32%
7 to 13 minutes	17%
14 to 26 minutes	7%
27 to 43 minutes	1%
44 minutes or longer	1%
No bus service	6%
<b>TOTAL (KW15 residents N=976)</b>	<b>100%</b>

**Table A 4: Frequency of bus services at nearest stop - Households**

Frequency of bus service at nearest stop	Proportion
bus every hour (or more frequent)	31%
bus every 2 hours	51%
bus every 3 hours	6%
bus every 4 hours	7%
bus every 5 (or more) hours	6%
No Service	8%
<b>TOTAL</b>	<b>100% (N=699)</b>

**Table A 5: Views on convenience of public transport**

Convenience of Public Transport	Percentage
Very convenient	20%
Fairly convenient	31%
Neither nor	10%
Fairly inconvenient	11%
Very inconvenient	17%
No Opinion	12%
<b>Total</b>	<b>100%</b>

**Table A 6: Use of local bus service**

Frequency of using local buses	Percentage
Every day	0%
Almost every day	1%
Two or three times per week	2%
About once a week	3%
About once a fortnight	2%
About once a month	3%
Not used the local bus service in the previous month.	92%
<b>Total</b>	<b>100% (N=730)</b>

**Table A 7: Any bicycles for use by adults in the household**

Any bicycles for use by adults in the household?	Proportion
Bicycle Available	45%
No Bicycles Available	55%
<b>TOTAL</b>	<b>100%</b>

N=939 (KW15 residents)

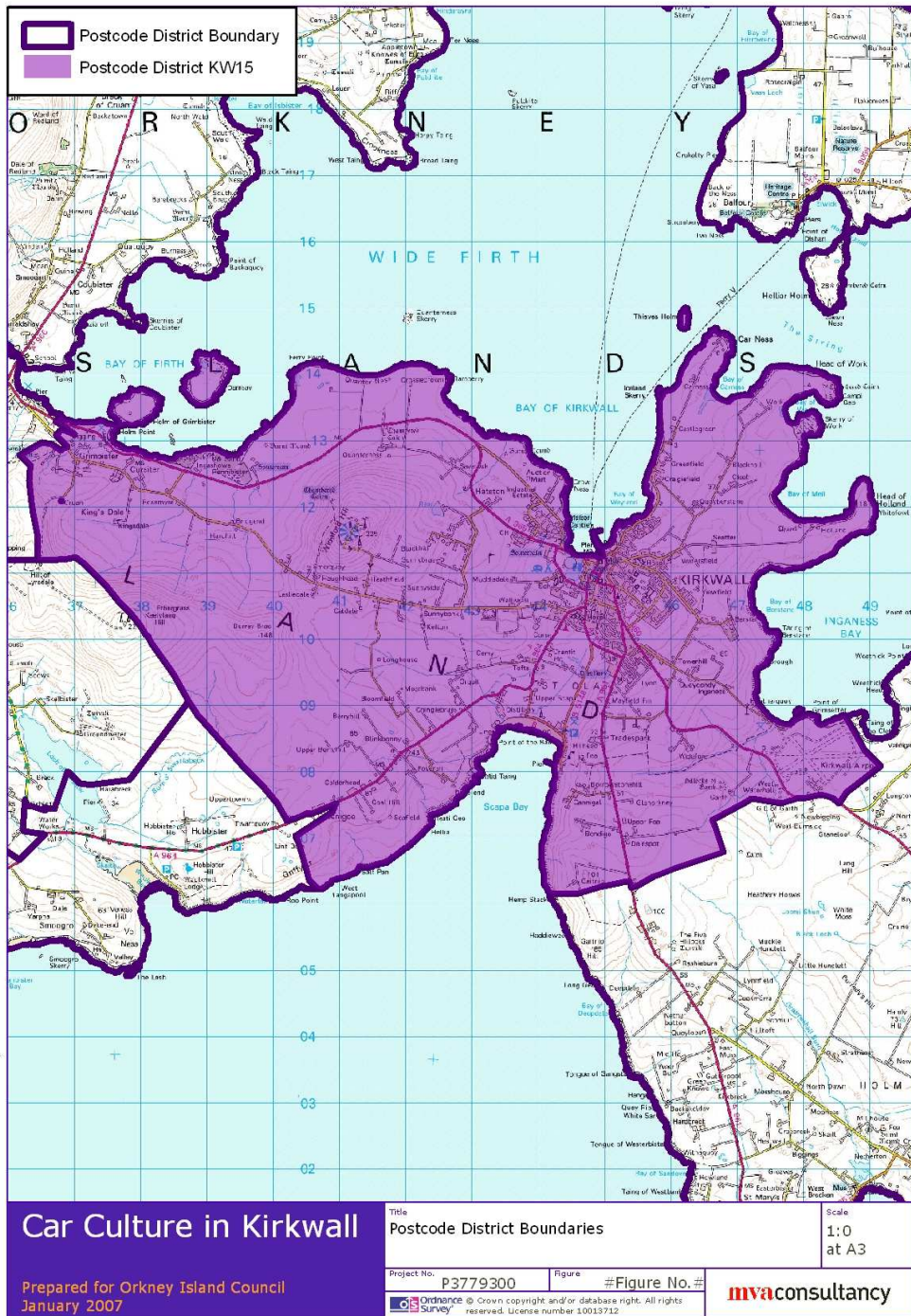
**Table A 8: Usual method of travel to work (SHS KW15 residents)**

Main Mode	Percentage
Car Driver (and Taxi)	53%
Car Passenger	8%
Walking or cycling	31%
Ferry	3%
Bus	2%
Other	3%
<b>TOTAL</b>	<b>100% (N=486)</b>

**Table A 9: Mode and Journey Purpose**

Purpose	Car Driver	Taxi	Car Passenger	Public Transport	Walk or Cycle	Other	TOTAL	N
Employers Business	87%	0%	4%	2%	4%	4%	100%	234
Work	69%	0%	11%	1%	17%	1%	100%	928
Education	60%	0%	13%	7%	20%	0%	100%	71
Other	57%	2%	22%	1%	15%	3%	100%	925
Day trip	54%	0%	21%	0%	23%	2%	100%	274
Shopping	54%	2%	18%	1%	23%	2%	100%	767
Hospital, GP etc	47%	7%	27%	0%	13%	7%	100%	97
<b>ALL PURPOSES</b>	<b>62%</b>	<b>1%</b>	<b>16%</b>	<b>1%</b>	<b>17%</b>	<b>2%</b>	<b>100%</b>	<b>3,296</b>

## Appendix B – Postcode Boundary



**Figure B1 KW15 (Kirkwall residents SHS analysis)**

## Appendix C – Characteristics and Attitudes of 'Non-Sustainable' Mode Choice



SHS analysis was undertaken to look at the characteristics and attitudes of 'Non sustainable' mode choice. The Tables provided in this Appendix provide details of sample sizes and proportions:

- Table C1: Household Type
- Table C2: Household Income
- Table C3: Driving Licence
- Table C4: Journey Purpose
- Table C5: Employment Status
- Table C6: HIH Social Class
- Table C7: Age
- Table C8: Frequency of Driving
- Table C9: Frequency of Using Local Buses
- Table C10: Convenience of Public Transport

**Table C 1: Household Type**

Household Type	Non-Sustainable Choice	Other Choice	Total	Sample Size
One Car & one adult	79%	21%	100%	393
One car & two or more adults	66%	34%	100%	779
Two or more cars	81%	19%	100%	432
Total	73%	27%	100%	1604

**Table C 2: Household Income**

Household Income	Non-Sustainable Choice	Other Choice	Total	Sample Size
less than £10k	63%	37%	100%	252
£10k to 20k	73%	27%	100%	614
£20k to 30k	75%	25%	100%	433
greater than £30k	82%	18%	100%	305
Total	73%	27%	100%	1604

**Table C 3: Driving Licence**

Driving licence	Non-Sustainable Choice	Other Choice	Total	Sample Size
Full driving licence	78%	22%	100%	1475
No full driving licence	18%	82%	100%	129
Total	73%	27%	100%	1604

**Table C 4: Journey Purpose**

Purpose	Non-Sustainable Choice	Other Choice	Total	Sample Size
Commute	73%	27%	100%	564
Employers business	91%	9%	100%	110
Shopping	73%	27%	100%	375
Day trip	70%	30%	100%	111
Other	71%	29%	100%	444
Total	73%	27%	100%	1604

**Table C 5: Employment Status**

Status	Non-Sustainable Choice	Other Choice	Total	Sample Size
Self employed	89%	11%	100%	141
Employed full time	75%	25%	100%	809
Employed part time	67%	33%	100%	210
Looking after the home or family	62%	38%	100%	82
Permanently retired from work	76%	24%	100%	261
Other (eg unemployed, at school etc)	55%	45%	100%	101
Status	Non-Sustainable Choice	Other Choice	Total	Sample Size

**Table C 6: HIH Social Class**

HIH Social Class	Non-Sustainable Choice	Other Choice	Total	Sample Size
Professional, managerial and technical	79%	21%	100%	318
Skilled (manual and non-manual)	68%	32%	100%	257
Partly skilled or unskilled	50%	50%	100%	119
Missing	76%	24%	100%	910
Total	73%	27%	100%	1604

**Table C 7: Age**

Age	Non-Sustainable Choice	Other Choice	Total	Sample Size
16 - 24	49%	51%	100%	99
25 - 34	73%	27%	100%	315
35 - 44	77%	23%	100%	412
45 - 54	80%	20%	100%	344
55 - 64	67%	33%	100%	241
65 and over	74%	26%	100%	193
Total	73%	27%	100%	1604

**Table C 8: Frequency of Driving**

Frequency of Driving	Non-Sustainable Choice	Other Choice	Total	Sample Size
Every day	85%	15%	100%	1167
less than every day	52%	48%	100%	327
Missing	17%	83%	100%	110
Total	73%	27%	100%	1604

**Table C 9: Frequency of Using Local Buses**

Frequency of Using Local Bus Service	Non-Sustainable Choice	Other Choice	Total	Sample Size
Used the local bus service in the previous month.	52%	48%	100%	64
Not used the local bus service in the previous month.	78%	22%	100%	919
Missing	69%	31%	100%	621
Total	73%	27%	100%	1604

**Table C 10: Convenience of Public Transport**

Convenience of Public Transport	Non-Sustainable Choice	Other Choice	Total	Sample Size
Very convenient	63%	37%	100%	191
Fairly convenient	72%	28%	100%	343
Neither nor	74%	26%	100%	125
Fairly inconvenient	72%	28%	100%	198
Very inconvenient	83%	17%	100%	269
No Opinion	67%	33%	100%	166
Missing	77%	23%	100%	312
Total	73%	27%	100%	1604



## Appendix D – Travel in Similar Communities

This Appendix provides details of proportions and sample sizes calculated as part of the analysis described in Chapter 3 (Review of Travel in Similar Communities). The following Tables are provided:

- Table D1 details car availability and towns
- Table D2 to Table D6 show the percentages of mode share in total and for four household categories (C0 C1\_1, C1\_2 and C2+), by settlement are provided in this Appendix. Figures shaded red highlight settlements with highest mode share and green shows lowest mode share. Details of small sample sizes (N<100) are shown in blue.
- Table D7 details in-commuting mode share and Table D8 details out-commuting mode share (Census 2001)
- Table D9 details 'non-commuting' mode share.
- Table D10 provides a summary of mode share in comparable Scottish towns
- Table D11 details percentage of public transport users (car available households)

**Table D 1: Car Availability by Town**

Settlement	Households N	No Car	One Car	Two (or more) Cars	Total
Rothesay	2646	53%	38%	9%	100%
Campbeltown	2391	46%	43%	11%	100%
Girvan	3120	41%	45%	14%	100%
Wick	3201	40%	46%	13%	100%
Oban	3489	37%	47%	17%	100%
Stornoway	3519	36%	46%	18%	100%
Lerwick	2993	35%	45%	20%	100%
Kirkwall	2797	34%	49%	17%	100%
Thurso	3401	33%	50%	17%	100%
Dunbar	2620	31%	48%	21%	100%
Crieff	2812	26%	47%	27%	100%
North Berwick	2707	24%	47%	29%	100%
Ellon	3467	15%	49%	36%	100%



**Table D 2: Mode Share: SHS Travel Diary (1999 to 2006)**

Settlement	Car Driver	Taxi	Car Passenger	Public Transport	Walk or Cycle	Other	TOTAL	N
Kirkwall	<b>58%</b>	<b>2%</b>	<b>16%</b>	<b>1%</b>	<b>21%</b>	<b>3%</b>	<b>100%</b>	<b>2691</b>
Campbeltown	51%	2%	12%	3%	31%	1%	100%	370
Crieff	60%	<b>2%</b>	13%	6%	18%	1%	100%	357
Dunbar	52%	1%	17%	8%	21%	1%	100%	435
Ellon	67%	1%	12%	4%	15%	1%	100%	541
Lerwick	64%	1%	15%	3%	14%	2%	100%	3810
North Berwick	<b>69%</b>	<b>0%</b>	12%	6%	<b>12%</b>	1%	100%	500
Oban	53%	1%	18%	4%	19%	5%	100%	621
Rothesay	<b>38%</b>	1%	<b>11%</b>	6%	<b>38%</b>	<b>6%</b>	100%	467
Stornoway	57%	1%	17%	<b>9%</b>	14%	1%	100%	1982
Thurso	52%	1%	<b>25%</b>	3%	17%	1%	100%	487
Wick	52%	2%	22%	4%	21%	<b>0%</b>	100%	438
Girvan	50%	1%	15%	4%	29%	1%	100%	326

**Table D 3: Mode Share: Household with no car available**

Settlement	Car Driver	Taxi	Car Passenger	Public Transport	Walk or Cycle	Other	TOTAL	N
Kirkwall	7%	7%	18%	2%	61%	5%	100%	498
Campbeltown	3%	4%	18%	7%	65%	3%	100%	115
Crieff	19%	12%	14%	23%	30%	2%	100%	50
Dunbar	11%	2%	23%	9%	52%	3%	100%	79
Ellon	12%	0%	21%	33%	33%	0%	100%	42
Girvan	11%	4%	16%	10%	57%	2%	100%	128
Lerwick	14%	6%	20%	10%	46%	4%	100%	751
North Berwick	7%	2%	12%	21%	50%	7%	100%	60
Oban	1%	2%	15%	13%	59%	9%	100%	139
Rothesay	1%	3%	9%	10%	69%	8%	100%	195
Stornoway	4%	3%	25%	28%	39%	2%	100%	468
Thurso	3%	12%	32%	8%	45%	0%	100%	92
Wick	8%	4%	26%	4%	57%	0%	100%	95

**Table D 4: Mode Share: Households with one car/van available for use by a single adult**

Settlement	Car Driver	Taxi	Car Passenger	Public Transport	Walk or Cycle	Other	TOTAL	N
Kirkwall	72%	2%	7%	0%	16%	4%	100%	539
Campbeltown	76%	4%	4%	0%	16%	0%	100%	87
Crieff	74%	0%	2%	0%	24%	0%	100%	65
Dunbar	64%	0%	10%	2%	24%	0%	100%	80
Ellon	78%	0%	6%	12%	4%	0%	100%	85
Girvan	76%	0%	5%	0%	19%	0%	100%	32
Lerwick	84%	0%	2%	0%	12%	1%	100%	690
North Berwick	90%	0%	2%	0%	8%	0%	100%	118
Oban	81%	2%	4%	0%	6%	8%	100%	89
Rothesay	75%	0%	6%	6%	9%	3%	100%	63
Stornoway	84%	0%	3%	1%	12%	0%	100%	396
Thurso	64%	0%	14%	0%	14%	7%	100%	49
Wick	83%	0%	7%	10%	0%	0%	100%	81

**Table D 5: Mode Share Households with one car/van available for the use of two or more adults**

Settlement	Car Driver	Taxi	Car Passenger	Public Transport	Walk or Cycle	Other	TOTAL	N
Kirkwall	60%	1%	17%	1%	20%	2%	100%	1061
Campbeltown	59%	0%	12%	0%	27%	1%	100%	120
Crieff	52%	2%	19%	6%	21%	0%	100%	144
Dunbar	56%	2%	24%	2%	17%	0%	100%	112
Ellon	62%	1%	14%	3%	18%	2%	100%	183
Girvan	60%	0%	19%	2%	19%	0%	100%	119
Lerwick	67%	1%	17%	2%	11%	2%	100%	1327
North Berwick	69%	0%	18%	3%	9%	2%	100%	171
Oban	54%	1%	20%	5%	16%	3%	100%	230
Rothesay	54%	0%	11%	3%	28%	5%	100%	137
Stornoway	60%	1%	23%	5%	10%	2%	100%	704
Thurso	51%	0%	29%	3%	16%	2%	100%	240
Wick	50%	2%	27%	5%	17%	0%	100%	173

**Table D 6: Mode Share: Households with two or more cars/available**

Settlement	Car Driver	Taxi	Car Passenger	Public Transport	Walk or Cycle	Other	TOTAL	N
Kirkwall	73%	1%	18%	1%	5%	3%	100%	593
Campbeltown	74%	0%	13%	7%	5%	0%	100%	48
Crieff	75%	0%	10%	4%	9%	1%	100%	96
Dunbar	61%	0%	12%	13%	13%	1%	100%	164
Ellon	74%	1%	12%	0%	14%	0%	100%	231
Girvan	79%	0%	8%	0%	13%	0%	100%	47
Lerwick	77%	1%	15%	1%	4%	3%	100%	1042
North Berwick	76%	0%	10%	7%	8%	0%	100%	151
Oban	69%	0%	19%	0%	8%	4%	100%	163
Rothesay	48%	0%	18%	5%	24%	6%	100%	72
Stornoway	76%	1%	9%	7%	5%	2%	100%	414
Thurso	73%	1%	17%	0%	8%	1%	100%	106
Wick	72%	1%	15%	0%	13%	0%	100%	89

**Table D 7: Out-Commuting Mode Share by Town**

Settlement	Car Driver (and Taxi)	Car Passenger	Public Transport	Walk or Cycle	Other	Total	Count
Ellon	71%	8%	8%	10%	3%	100%	3,988
North Berwick	63%	6%	14%	16%	1%	100%	2,266
Crieff	59%	8%	3%	30%	1%	100%	2,426
Stornoway	55%	13%	7%	22%	3%	100%	3,303
Lerwick	55%	13%	4%	26%	2%	100%	3,367
Dunbar	53%	12%	14%	21%	1%	100%	2,575
Thurso	52%	13%	12%	22%	2%	100%	3,288
Girvan	50%	13%	10%	25%	2%	100%	2,370
Oban	49%	9%	6%	33%	3%	100%	3,485
Kirkwall	48%	8%	2%	39%	3%	100%	2,707
Rothesay	48%	6%	5%	38%	2%	100%	1,686
Campbeltown	46%	11%	3%	37%	2%	100%	1,847
Wick	44%	10%	13%	32%	2%	100%	2,869

**Table D 8: In-Commuting Mode Share by Town**

Town	Car Driver (and Taxi)	Car Passenger	Public Transport	Walk or Cycle	Other	Total	Count
Ellon	67%	10%	4%	18%	1%	100%	2,249
Lerwick	64%	12%	6%	17%	1%	100%	5,344
North Berwick	62%	7%	5%	24%	1%	100%	1,429
Stornoway	62%	14%	9%	14%	1%	100%	5,230
Kirkwall	58%	8%	2%	29%	2%	100%	3,512
Crieff	56%	8%	2%	33%	1%	100%	2,156
Thurso	56%	10%	4%	28%	1%	100%	2,437
Wick	55%	11%	3%	30%	1%	100%	3,025
Oban	54%	9%	6%	29%	2%	100%	4,039
Dunbar	52%	9%	5%	33%	0%	100%	1,625
Campbeltown	52%	10%	3%	34%	1%	100%	2,073
Rothesay	50%	7%	5%	36%	2%	100%	1,860
Girvan	46%	7%	4%	41%	1%	100%	1,456

**Table D 9: Mode Share Proportions: All purposes (excluding commuting)**

Settlement	Car Driver	Taxi	Car Passenger	Public Transport	Walk or Cycle	Other	TOTAL	N
North Berwick	69%	0%	14%	4%	12%	1%	100%	433
Lerwick	64%	1%	17%	3%	14%	3%	100%	2744
Ellon	63%	1%	14%	3%	17%	1%	100%	378
Crieff	59%	3%	16%	6%	15%	1%	100%	275
Stornoway	56%	1%	19%	7%	16%	2%	100%	1414
Kirkwall	55%	2%	18%	1%	21%	3%	100%	1936
Wick	53%	2%	24%	1%	20%	0%	100%	343
Oban	52%	1%	21%	5%	16%	5%	100%	503
Thurso	51%	2%	28%	3%	16%	1%	100%	400
Campbeltown	49%	2%	15%	3%	30%	1%	100%	300
Dunbar	47%	1%	20%	6%	25%	1%	100%	324
Girvan	46%	1%	18%	4%	31%	0%	100%	267
Rothsay	38%	1%	12%	6%	35%	7%	100%	372



**Table D 10: Summary of Mode Share in Remote Small Scottish Towns**

Town	House holds with at least one car	Car Driver (and Taxi)			Public Transport			Walking and cycling		
		Out Commute	In Commute	Non Commute	Out Commute	In Commute	Non Commute	Out Commute	In Commute	Non Commute
Campbeltown	54%	57%	62%	66%	3%	3%	3%	37%	34%	30%
Crieff	74%	66%	64%	77%	3%	2%	6%	30%	33%	15%
Dunbar	69%	64%	61%	68%	14%	5%	6%	21%	33%	25%
Ellon	85%	79%	77%	79%	8%	4%	3%	10%	18%	17%
Girvan	59%	63%	54%	65%	10%	4%	4%	25%	41%	31%
<b>Kirkwall</b>	<b>66%</b>	<b>56%</b>	<b>67%</b>	<b>75%</b>	<b>2%</b>	<b>2%</b>	<b>1%</b>	<b>39%</b>	<b>29%</b>	<b>21%</b>
Lerwick	65%	68%	76%	81%	4%	6%	3%	26%	17%	14%
North Berwick	76%	69%	69%	83%	14%	5%	4%	16%	24%	12%
Oban	63%	58%	63%	74%	6%	6%	5%	33%	29%	16%
Rothesay	47%	54%	57%	51%	5%	5%	6%	38%	36%	35%
Stornoway	64%	69%	76%	75%	7%	9%	7%	22%	14%	16%
Thurso	67%	65%	66%	81%	12%	4%	3%	22%	28%	16%
Wick	60%	54%	66%	79%	13%	3%	1%	32%	30%	20%

**Table D 11: Percentage of public transport users (car available households)**

<b>Town</b>	<b>All people aged 16-74 in employment or studying</b>	<b>Percentage of public transport users (car available households)</b>	<b>Percentage of public transport users (non-car available households)</b>
Kirkwall	3188	60	40
Campbeltown	2134	58	42
Crieff	3075	79	21
Dunbar	2972	72	28
Ellon	4934	84	16
Girvan	2975	62	38
Lerwick	3773	66	35
North Berwick	2741	85	15
Oban	4212	51	49
Rothsay	2072	50	50
Stornoway	4006	63	37
Thurso	3851	71	29
Wick	3369	74	26



# Appendix E – Kirkwall Household Survey – questionnaire and covering letter

A household survey was undertaken to obtain information and hence help understand the travel behaviour of Kirkwall residents. This Appendix provides a copy of the survey form (and covering letter) that was distributed to 2,898 named individuals in the Kirkwall area in the week beginning 4<sup>th</sup> May 2009. The survey consisted of two parts.

- *Main Household Survey* - an 8 page questionnaire to be completed by an adult chosen to represent the household; and
- *Additional Adults Survey* - four copies of a 4 page questionnaire to record the views of up to four adult members of the household (ie aged 16 and over).

DEPARTMENT OF DEVELOPMENT SERVICES  
TRANSPORTATION SERVICE

**Head of Transportation:** Naomi Coleman  
Council Offices, School Place, Kirkwall, Orkney, KW15 1NY



(If telephoning or calling please ask for: Laura Cromarty 01856 873535 Ext: 2535)  
Fax (01856) 886466 Email: [laura.cromarty@orkney.gov.uk](mailto:laura.cromarty@orkney.gov.uk)

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11<sup>th</sup> May 2009

**SMARTER CHOICES, SMARTER PLACES – KIRKWALL HOUSEHOLD SURVEY**

Dear Householder,

In 2008 the Transport Minister, Stewart Stevenson MSP announced that Kirkwall was one of the seven towns in Scotland to receive Scottish Government funding from the Smarter Choices Smarter Places Initiative, to become a Sustainable Travel Demonstration Town.

As part of this prestigious project a programme of research is underway and the enclosed survey led by MVA Consultancy and Napier Transport Research Institute is to help us better understand travel behaviour in Kirkwall so we can plan for the future. You may have already been asked to complete a baseline travel survey for Derek Halden Consultants and we are grateful to you if you have taken the time to complete it. Even if you have completed the baseline survey we would be pleased if you could also complete the enclosed questionnaire, as the two surveys have differing purposes.

If you return the completed questionnaire to us by **Friday 5<sup>th</sup> June 2009** with your contact details you are eligible to enter our **£250 cash prize draw**. You can return the questionnaire using the postage paid envelope provided or at Customer Services, School Place, Kirkwall. Alternatively, an electronic version of this questionnaire can be completed at [www.kirkwallsurvey.co.uk](http://www.kirkwallsurvey.co.uk)

If you have any queries about the survey or have any difficulties in completing the questionnaire, please contact Lucy Barker at MVA Consultancy on 0131 240 8913 or Laura Cromarty at Orkney Islands Council on 01856 873535.

Your answers will help Orkney Islands Council shape transport measures, information and policy in the future, and we very much appreciate your input; thank you for your time.

Yours sincerely

Laura Cromarty  
Orkney Islands Council

As part of ongoing research for Orkney Islands Council, MVA Consultancy and Napier Transport Research Institute are conducting a survey into travel behaviour in Kirkwall. We would be grateful if you could complete this questionnaire and return it to us by **Friday 5<sup>th</sup> June 2009**, using the postage paid envelope provided.

The survey consists of the following:

1. an 8-page questionnaire which should be completed by an adult chosen to represent the household;
2. supplementary pages to record the views of up to three additional adult members of the household (ie aged 16 and over).

Alternatively, an electronic version of this questionnaire can be completed at [www.kirkwallsurvey.co.uk](http://www.kirkwallsurvey.co.uk)

Please only complete **ONE** version of the main questionnaire per household.

To thank you for completing the questionnaire, we can enter your details into our **£250 cash prize draw**. If you would like to be entered, please provide your contact details at the end of the questionnaire.

The information you provide will be treated as confidential and will be covered by the current UK Data Protection legislation. We will not identify individuals within our analysis or reporting and there will be no follow-up sales calls.

If you have any queries about the survey or have any difficulties in completing the questionnaire, please contact Lucy Barker at MVA Consultancy on 0131 240 8913 or Laura Cromarty at Orkney Islands Council on 01856 873535.

Thank you

### ABOUT YOUR HOUSEHOLD

Q1a. How many people are living at the address where this questionnaire was delivered, including yourself and any children?

Q1b. Of these, **how many** are:

Self Employed	
Employed full time	
Employed part time	
Looking after the home or family	
Permanently retired from work	
Unemployed and seeking work	
At school	

In further/higher education	
Government work or training scheme	
Permanently sick or disabled	
Unable to work due to short-term illness or injury	
Pre school/Not yet at school	
Other (please specify)	

Q2. How many cars or light vans are normally available for private use by members of your household?

**YOUR TRAVEL BEHAVIOUR**

Q3. Please indicate (by **ticking** the appropriate box) the frequency with which you personally use **EACH** of the following modes of transport.

**ADULT 1**

Mode of Travel	Frequency of Use						
	Every day	At least three times a week	Once or twice a week	At least 2 to 3 times a month	At least once a month	Less than once a month	Never
Unaccompanied Car Driver							
Car Driver with Passengers							
Car Passenger							
Taxi							
Local Bus (scheduled)							
Dial-a-Bus							
Coach/bus (UK Mainland)							
Walk							
Motorcycle							
Pedal Cycle/Bicycle							
Ferry (within Orkney)							
Ferry (to Scottish Mainland/ Shetland)							
Aeroplane							
Other (please specify)							

**IF YOU TRAVEL BY CAR OR TAXI LESS THAN ONCE A MONTH PLEASE GO TO QUESTION Q16. OTHERWISE, PLEASE CONTINUE.**



Q4. Please use the enclosed **zone map** to select which zones you travel from/to and to describe the most frequent trips you make by **car** (including trips made as either the driver or as a passenger) or **taxi** (excluding dial-a-bus services).

### Example

Journey	Journey Purpose				Journey Description				Frequency
	Commute (travelling to/from work)	Shopping	Business (as part of your work)	Other	From (Zone)	To (Zone)	One-way	There & back	
1	✓				E	H		✓	20
2		✓			E	G		✓	5
3				✓	E	G		✓	4
4			✓		H	H		✓	1
5				✓	H	N	✓		1
6				✓	N	K	✓		1
7				✓	K	H	✓		1
8									

### To Complete

Journey	Journey Purpose				Journey Description				Frequency
	Commute	Shopping	Business	Other	From (Zone)	To (Zone)	One-way	There & back	
1									
2									
3									
4									
5									
6									
7									
8									

Q5. On a scale of 1 to 5, where 1 is 'strongly disagree' and 5 is 'strongly agree', how far do you agree with **each** of the following statements regarding your reasons for using a car-based mode for these journeys (please **tick**):

	Strongly disagree 1	2	Neither agree nor disagree 3	4	Strongly agree 5
Other modes cost more					
Other modes are less convenient					
Car is the safest mode					
Car/taxi is the only (realistic) mode available to me					
Car is the quickest mode					
My poor health/fitness prevents me from walking or cycling					
I use my car because the weather is too unpredictable					
I only cycle/walk in summer					
I do not cycle because I do not own a bicycle					
I need my car to perform my job					
I need my car for other reasons (eg dropping off/collecting children)					
I tend to carry too much to use other modes					

Q6. Use the table below to record how much you agree or disagree with **each** of the following statements regarding problems you face as a car user nowadays (please **tick**):

	Strongly disagree 1	2	Neither agree nor disagree 3	4	Strongly agree 5
I cannot always park at my destination					
There are a lot of bad/dangerous drivers on Kirkwall's roads					
There are a lot of inconsiderate drivers on Kirkwall's roads					
Kirkwall's roads are in poor condition					
There are too many cars on Kirkwall's roads					
Traffic congestion is a big problem in Kirkwall					
The cost of petrol/diesel is too high					
There are not enough parking spaces in Kirkwall					
Too much of Kirkwall's road space is given to other road users other than drivers					
There are a lot of delays in Kirkwall caused by road works					
Cyclists and pedestrians are a problem on Kirkwall's roads					

Q7. Please complete the following sentences:

What I like about driving in Kirkwall is...
What I dislike about driving in Kirkwall is...

Q8. On a scale of 1 to 5, where 1 is 'strongly disagree' and 5 is 'strongly agree', how far do you agree with **each** of the following statements regarding car use (please **tick**):

	Strongly disagree 1	2	Neither agree nor disagree 3	4	Strongly agree 5
I am actively trying to use my car less					
I find travelling by car can be stressful sometimes					
I am not interested in reducing my car use					
I would like to reduce my car use but there are no practical alternatives					
When I am getting ready to go out, I usually don't think about how I am going to travel, I just get in my car					
Reducing my car use would make me feel good					
It would be easy for me to reduce my car use					
I would be willing to pay higher taxes on car use if I knew the revenue would be used to support public transport					
I have recently reduced my normal driving speed					

Q9. Which of the following statements **best** describes your aim for car use for everyday travel in Kirkwall over the next few months? (Please tick **one** box only)

I have started to reduce my car use whenever possible.	<input type="checkbox"/> 1
My aim is to reduce car usage. I know how to reach this goal, but have yet to put my plans into practice.	<input type="checkbox"/> 2
I am currently using the car frequently but thinking of ways to reduce car usage. I am not sure to reach this goal yet.	<input type="checkbox"/> 3
I am currently using the car frequently but other factors do not allow me to reduce car usage at this point in time.	<input type="checkbox"/> 4
I am currently using the car frequently. I am aware that there are ways to reduce my car usage but at the moment I am not interested in doing so.	<input type="checkbox"/> 5

**CAR SHARING**

Car sharing is the shared use of a car by the driver and one or more passengers, usually for commuting. Car sharing arrangements and schemes can involve varying degrees of formality and regularity.

Q10. Are you involved in any **car sharing** arrangement where you regularly (ie. once a week or more) make all or part of the journey to or from work or education with people you don't live with?

- Yes, regularly  1      Yes, but not regularly  3  
 No  2      Don't Know  4

Q11. Which of the following measures would encourage you to **car share** more? (Please tick **all** that apply)

- Additional car parking spaces for car-sharers at my destination  1
- Cheaper car parking for car-sharers  2
- Help in finding car share partners  3
- Guaranteed ride home in an emergency/if let down by the other car driver  4
- A car-sharing scheme organised by my employer  5
- Nothing would encourage me to car share more  6
- Other (please specify) \_\_\_\_\_  7

**PUBLIC TRANSPORT**

Q12. Which of the following measures would encourage you to use **public transport** more? (Please tick **all** that apply)

- |   |                            |  |                             |
|---|----------------------------|--|-----------------------------|
| New public transport routes                                     | <input type="checkbox"/> 1 | Improved information at bus stops and Kirkwall Travel Centre | <input type="checkbox"/> 8  |
| Quicker public transport (eg express services with fewer stops) | <input type="checkbox"/> 2 | More conveniently-located bus stops                          | <input type="checkbox"/> 9  |
| More frequent public transport                                  | <input type="checkbox"/> 3 | Higher car fuel prices                                       | <input type="checkbox"/> 10 |
| Cheaper public transport  | <input type="checkbox"/> 4 | A reduction in the number of parking spaces in Kirkwall      | <input type="checkbox"/> 11 |
| More reliable public transport                                  | <input type="checkbox"/> 5 | An increase in the cost of parking in Kirkwall               | <input type="checkbox"/> 12 |
| Use of buses which are easier to get on and off                 | <input type="checkbox"/> 6 | Nothing would encourage me to use public transport more      | <input type="checkbox"/> 13 |
| Improved facilities at bus stops and Kirkwall Travel Centre     | <input type="checkbox"/> 7 | Other (please specify)                                       | <input type="checkbox"/> 14 |
- \_\_\_\_\_

**WALKING AND CYCLING**

Q13. Which of the following measures would encourage you to **cycle** more? (Please tick **all** that apply)

- |  |                            |  |                            |
|--|----------------------------|--|----------------------------|
| Improved/safer cycle routes                      | <input type="checkbox"/> 1 | Cycle Training                           | <input type="checkbox"/> 5 |
| Showers and changing facilities at work          | <input type="checkbox"/> 2 | Nothing would encourage me to cycle more | <input type="checkbox"/> 6 |
| Secure bike storage facilities at my destination | <input type="checkbox"/> 3 | Other (please specify)                   | <input type="checkbox"/> 6 |
| Cheaper bicycles                                 | <input type="checkbox"/> 4 | _____                                    |                            |

Q14. Which of the following changes would encourage you to **walk** more? (Please tick **all** that apply)

- |   |                            |   |                            |
|---|----------------------------|---|----------------------------|
| Road safety improvements (including pedestrian crossing facilities) | <input type="checkbox"/> 1 | Nothing would encourage me to walk more | <input type="checkbox"/> 4 |
| Better street lighting  | <input type="checkbox"/> 2 | Other (please specify)                  | <input type="checkbox"/> 5 |
| More/better pavements   | <input type="checkbox"/> 3 | _____                                   |                            |

Q14b. If you ticked 'Road Safety Improvements' above, please state **specifically** at what points/junctions you would like to see these improvements?

Q16. On a scale of 1 to 5, where 1 is 'strongly disagree' and 5 is 'strongly agree', how far do you agree with **each** of the following statements regarding the **main** drawbacks of car use in Kirkwall (please **tick**):

	Strongly disagree 1	2	Neither agree nor disagree 3	4	Strongly agree 5
Car use makes Kirkwall less attractive to residents and visitors					
Car use adds to traffic noise					
Car use increases the risk of collisions with pedestrians and/or cyclists					
Car use increases the risk of collisions with other cars					
Car use reduces air quality in Kirkwall					
Contributes to global warming/climate change					
Other (please specify)					
There are no drawbacks to car use					

Q17. Specifically thinking about the environment, use the table below to record how much you agree or disagree with **each** of the following statements (please **tick**):

	Strongly disagree 1	2	Neither agree nor disagree 3	4	Strongly agree 5
It is important to build more roads to reduce congestion					
The car a person owns says a lot about the kind of person they are					
People should be allowed to use their cars as much as they like, even if it causes damage to the environment					
Being environmentally responsible is important to me as a person					
Environmental threats such as global warming have been over exaggerated					
For the sake of the environment, car users should pay higher taxes					
The government should take more of a lead in protecting the environment, even if people don't like it					
Other (please specify)					

Q18. What do you think are the **main** benefits of walking and cycling? (Please tick up to 3)

- |   |                          |   |  |                          |    |
|---|--------------------------|---|--|--------------------------|----|
| Cheaper than other modes of travel                              | <input type="checkbox"/> | 1 | Doesn't add to congestion                    | <input type="checkbox"/> | 6  |
| Better for my health  | <input type="checkbox"/> | 2 | More enjoyable than driving or using the bus | <input type="checkbox"/> | 7  |
| Better for my fitness level                                     | <input type="checkbox"/> | 3 | Quicker than waiting for a bus               | <input type="checkbox"/> | 8  |
| Better for the local environment (reduced noise, air pollution) | <input type="checkbox"/> | 4 | Other (please specify)                       | <input type="checkbox"/> | 9  |
| Doesn't contribute to global warming/climate change             | <input type="checkbox"/> | 5 | None of the above                            | <input type="checkbox"/> | 10 |

**ABOUT YOU**

Q19. Are you:

Male

 <sub>1</sub>

Female

 <sub>2</sub>

Q20. What age are you?

Q21. Do you have:

A Concessionary Travel Card

 <sub>1</sub>

Other (please specify)

 <sub>4</sub>

A Season Ticket eg. Megarider or 50  
journey ticket

 <sub>2</sub>

\_\_\_\_\_

Dial-a-Bus pass

 <sub>3</sub>

None of the above

 <sub>5</sub>

Q22. What is your postcode?

Q23. Which of the following do you have (Please tick **all** that apply):

Full UK Driving Licence

 <sub>1</sub>

Other Form of Driving Licence  
(please specify)

 <sub>4</sub>

Provisional UK Driving Licence

 <sub>2</sub>

UK Motorcycle Licence

 <sub>3</sub>

\_\_\_\_\_

None of the above

 <sub>5</sub>

Q24. Do you have any long-standing illness, health problem or disability that limits your travel choices?

Yes

 <sub>1</sub>

No

 <sub>2</sub>

Q25. Do you have a blue badge issued by Orkney Islands Council, to provide parking concessions to disabled people who travel either as car drivers or passengers?

Yes

 <sub>1</sub>

No

 <sub>2</sub>

## Travel Behaviour of Additional Adults within the Household – Adult 2

Please now pass this questionnaire on to each additional adult member of the household (ie aged 16 and over).

This section of the survey consists of a 2-page questionnaire which should be completed by **each additional adult member of the household** (ie aged 16 and over).

### YOUR TRAVEL BEHAVIOUR

Q1. Please indicate (by **ticking** the appropriate box) the frequency with which you personally use **EACH** of the following modes of transport.

#### ADULT 2

Mode of Travel	Frequency of Use						
	Every day	At least three times a week	Once or twice a week	At least 2 to 3 times a month	At least once a month	Less than once a month	Never
Unaccompanied Car Driver							
Car Driver with Passengers							
Car Passenger							
Taxi							
Local Bus (scheduled)							
Dial-a-Bus							
Coach/bus (UK Mainland)							
Walk							
Motorcycle							
Pedal Cycle/Bicycle							
Ferry (within Orkney)							
Ferry (to Scottish Mainland/ Shetland)							
Aeroplane							
Other (please specify)							

**IF YOU TRAVEL BY CAR OR TAXI LESS THAN ONCE A MONTH PLEASE GO ON TO THE LAST SECTION TO PROVIDE YOUR DETAILS. THANK YOU FOR YOUR TIME.**

**IF YOU TRAVEL BY CAR OR TAXI MORE THAN ONCE A MONTH, PLEASE CONTINUE.**

Q2. Please use the enclosed **zone map** to select which zones you travel from/to and to describe the most frequent trips you make by **car** (including trips made as either the driver or as a passenger) or **taxi** (excluding dial-a-bus services).

**PLEASE SEE EXAMPLE AND ZONE MAP IN MAIN QUESTIONNAIRE ON PAGE 3**

Journey	Journey Purpose				Journey Description				Frequency
	Commute (travelling to/from work)	Shopping	Business (as part of your work)	Other	From (Zone)	To (Zone)	One-way	There & back	
1									
2									
3									
4									
5									
6									
7									
8									

**ABOUT YOU**

Q3. Are you:

Male

 <sub>1</sub>

Female

 <sub>2</sub>

Q4. What age are you?

Q5. Do you have any long-standing illness, health problem or disability that limits your travel choices?

Yes

 <sub>1</sub>

No

 <sub>2</sub>

Q6. Do you have a blue badge issued by Orkney Islands Council, to provide parking concessions to disabled people who travel either as car drivers or passengers?

Yes

 <sub>1</sub>

No

 <sub>2</sub>

Q7. Do you have:

A Concessionary Travel Card

 <sub>1</sub>

Other (please specify)

 <sub>4</sub>

A Season Ticket eg. Megarider or 50 journey ticket

 <sub>2</sub>

\_\_\_\_\_

Dial-a-Bus pass

 <sub>3</sub>

None of the above

 <sub>5</sub>

Q8. Which of the following do you have (Please tick **all** that apply):

Full UK Driving Licence

 <sub>1</sub>

Other Form of Driving Licence (please specify)

 <sub>4</sub>

Provisional UK Driving Licence

 <sub>2</sub>

UK Motorcycle Licence

 <sub>3</sub>

\_\_\_\_\_

None of the above

 <sub>5</sub>



## Travel Behaviour of Additional Adults within the Household – Adult 3

Please now pass this questionnaire on to each additional adult member of the household (ie aged 16 and over).

This section of the survey consists of a 2-page questionnaire which should be completed by **each additional adult member of the household** (ie aged 16 and over).

### YOUR TRAVEL BEHAVIOUR

Q1. Please indicate (by **ticking** the appropriate box) the frequency with which you personally use **EACH** of the following modes of transport.

#### ADULT 3

Mode of Travel	Frequency of Use						
	Every day	At least three times a week	Once or twice a week	At least 2 to 3 times a month	At least once a month	Less than once a month	Never
Unaccompanied Car Driver							
Car Driver with Passengers							
Car Passenger							
Taxi							
Local Bus (scheduled)							
Dial-a-Bus							
Coach/bus (UK Mainland)							
Walk							
Motorcycle							
Pedal Cycle/Bicycle							
Ferry (within Orkney)							
Ferry (to Scottish Mainland/ Shetland)							
Aeroplane							
Other (please specify)							

**IF YOU TRAVEL BY CAR OR TAXI LESS THAN ONCE A MONTH PLEASE GO ON TO THE LAST SECTION TO PROVIDE YOUR DETAILS. THANK YOU FOR YOUR TIME.**

**IF YOU TRAVEL BY CAR OR TAXI MORE THAN ONCE A MONTH, PLEASE CONTINUE.**

Q2. Please use the enclosed **zone map** to select which zones you travel from/to and to describe the most frequent trips you make by **car** (including trips made as either the driver or as a passenger) or **taxi** (excluding dial-a-bus services).

**PLEASE SEE EXAMPLE AND ZONE MAP IN MAIN QUESTIONNAIRE ON PAGE 3**

Journey	Journey Purpose				Journey Description				Frequency
	Commute (travelling to/from work)	Shopping	Business (as part of your work)	Other	From (Zone)	To (Zone)	One-way	There & back	
1									
2									
3									
4									
5									
6									
7									
8									

**ABOUT YOU**

Q3. Are you:

Male

 <sub>1</sub>

Female

 <sub>2</sub>

Q4. What age are you?

Q5. Do you have any long-standing illness, health problem or disability that limits your travel choices?

Yes

 <sub>1</sub>

No

 <sub>2</sub>

Q6. Do you have a blue badge issued by Orkney Islands Council, to provide parking concessions to disabled people who travel either as car drivers or passengers?

Yes

 <sub>1</sub>

No

 <sub>2</sub>

Q7. Do you have:

A Concessionary Travel Card

 <sub>1</sub>

Other (please specify)

 <sub>4</sub>

A Season Ticket eg. Megarider or 50 journey ticket

 <sub>2</sub>

\_\_\_\_\_

Dial-a-Bus pass

 <sub>3</sub>

None of the above

 <sub>5</sub>

Q8. Which of the following do you have (TICK ALL THAT APPLY)::

Full UK Driving Licence

 <sub>1</sub>

Other Form of Driving Licence (please specify)

 <sub>4</sub>

Provisional UK Driving Licence

 <sub>2</sub>

UK Motor Cycle Licence

 <sub>3</sub>

\_\_\_\_\_

None of the above

 <sub>5</sub>

## Travel Behaviour of Additional Adults within the Household – Adult 4

Please now pass this questionnaire on to each additional adult member of the household (ie aged 16 and over).

This section of the survey consists of a 2-page questionnaire which should be completed by **each additional adult member of the household** (ie aged 16 and over).

### YOUR TRAVEL BEHAVIOUR

Q1. Please indicate (by **ticking** the appropriate box) the frequency with which you personally use **EACH** of the following modes of transport.

#### ADULT 4

Mode of Travel	Frequency of Use						
	Every day	At least three times a week	Once or twice a week	At least 2 to 3 times a month	At least once a month	Less than once a month	Never
Unaccompanied Car Driver							
Car Driver with Passengers							
Car Passenger							
Taxi							
Local Bus (scheduled)							
Dial-a-Bus							
Coach/bus (UK Mainland)							
Walk							
Motorcycle							
Pedal Cycle/Bicycle							
Ferry (within Orkney)							
Ferry (to Scottish Mainland/ Shetland)							
Aeroplane							
Other (please specify)							

**IF YOU TRAVEL BY CAR OR TAXI LESS THAN ONCE A MONTH PLEASE GO ON TO THE LAST SECTION TO PROVIDE YOUR DETAILS. THANK YOU FOR YOUR TIME.**

**IF YOU TRAVEL BY CAR OR TAXI MORE THAN ONCE A MONTH, PLEASE CONTINUE.**

Q2. Please use the enclosed **zone map** to select which zones you travel from/to and to describe the most frequent trips you make by **car** (including trips made as either the driver or as a passenger) or **taxi** (excluding dial-a-bus services).

**PLEASE SEE EXAMPLE AND ZONE MAP IN MAIN QUESTIONNAIRE ON PAGE 3**

Journey	Journey Purpose				Journey Description				Frequency
	Commute (travelling to/from work)	Shopping	Business (as part of your work)	Other	From (Zone)	To (Zone)	One-way	There & back	
1									
2									
3									
4									
5									
6									
7									
8									

**ABOUT YOU**

Q3. Are you:

Male <sub>1</sub> Female <sub>2</sub>

Q4. What age are you?

Q5. Do you have any long-standing illness, health problem or disability that limits your travel choices?

Yes <sub>1</sub> No <sub>2</sub>

Q6. Do you have a blue badge issued by Orkney Islands Council, to provide parking concessions to disabled people who travel either as car drivers or passengers?

Yes <sub>1</sub> No <sub>2</sub>

Q7. Do you have:

A Concessionary Travel Card <sub>1</sub> Other (please specify) <sub>4</sub>  
 A Season Ticket eg. Megarider or 50 journey ticket <sub>2</sub> \_\_\_\_\_  
 Dial-a-Bus pass <sub>3</sub> None of the above <sub>5</sub>

Q8. Which of the following do you have (Please tick **all** that apply):

Full UK Driving Licence <sub>1</sub> Other Form of Driving Licence <sub>4</sub>  
 Provisional UK Driving Licence <sub>2</sub> (please specify)  
 UK Motor Cycle Licence <sub>3</sub> \_\_\_\_\_

## Concluding Remarks

Thank you for completing this questionnaire.

Do you wish your household to be entered into the prize draw to win the **£250 cash prize**? Yes / No

Would you be interested in taking part in further travel-related research? Yes / No

If you have answered Yes to either of the previous two questions please provide relevant contact details below.

*Name*

*Phone Number*

*Email*

We fully adhere to the Data Protection Act and your details will be treated in the strictest confidence. They will only be used for the purposes stated above, no individual will be identified in the reporting, and your contact details will not be passed to any third party.

Please return your completed questionnaire using the envelope provided by **Friday 5<sup>th</sup> June 2009.**

Thank you for your time.



# Zone Descriptions

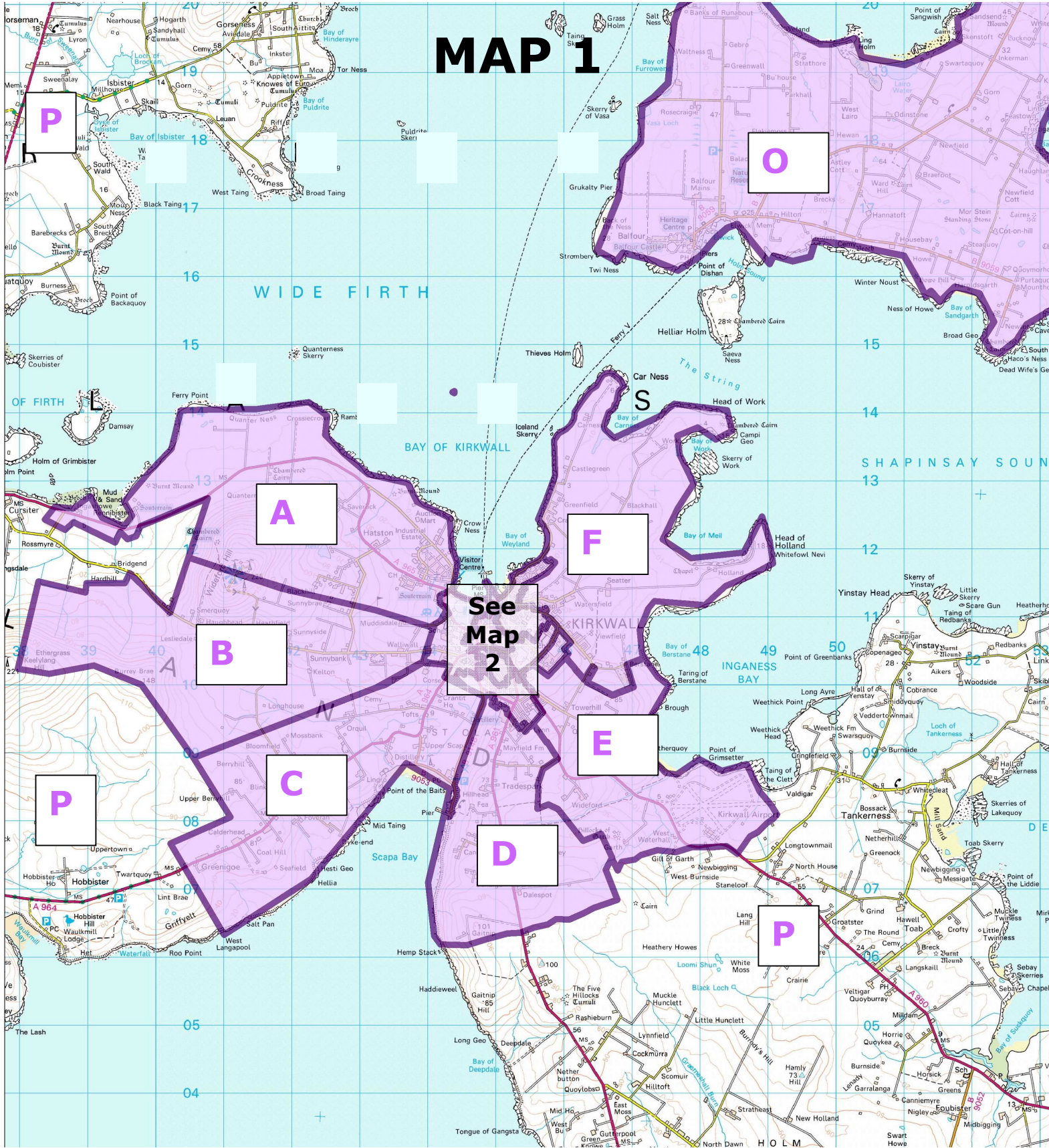
**Zone A to Zone F** Kirkwall Area (See Map 1)

**Zone G to Zone N** Kirkwall Town Centre (see Map 2) Note Zone E includes Kirkwall Airport

**Zone O** Shapinsay

**Zone P** rest of Orkney, rest of UK and beyond

## MAP 1





# MAP 2



VISITOR INFORMATION

G

H

I

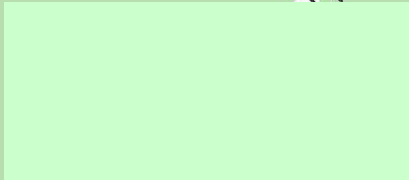
J

K

L

M

N



Maps based upon Ordnance Survey mapping with the permission of the controller of Her Majesty's Stationary Office  
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# Appendix F – Household Survey Responses



This Appendix provides details of proportions and sample sizes calculated as part of the analysis described in Chapter 5 (Kirkwall Household Survey). The following Tables are provided:

- Table F1, Table F2 to Table F3 show the frequency of travel by mode for three household categories (C0, C1,C2+);
- Table F4 and Table F4 details intrazonal car trips number of short car movements;
- Table F6 to Table F13 details characteristics of respondents making short car trips; and
- Table F14 to F18 details car use attitudes and perceptions of survey respondents.

**Table F1: Households with No Car Available: Frequency of use of different forms of transport**

Mode of Travel	Every day	At least three times a week	Once or twice a week	At least 2 to 3 times a month	At least once a month	Less than once a month	Never	TOTAL	Total N
Unaccompanied Car Driver	0%	0%	4%	1%	0%	4%	90%	100%	72
Car Driver with Passengers	0%	0%	9%	1%	1%	7%	81%	100%	70
Car Passenger	5%	10%	32%	14%	3%	25%	11%	100%	79
Taxi	1%	8%	18%	9%	8%	38%	17%	100%	76
Local Bus (scheduled)	5%	11%	7%	5%	7%	19%	45%	100%	73
Dial-a-Bus	0%	0%	8%	1%	7%	13%	70%	100%	71
Coach/bus (UK Mainland)	5%	0%	0%	0%	2%	42%	52%	100%	66
Walk	71%	9%	8%	2%	0%	1%	8%	100%	86
Motorcycle	0%	0%	0%	2%	0%	0%	98%	100%	63
Pedal Cycle/Bicycle	6%	4%	0%	0%	1%	6%	83%	100%	70
Ferry (within Orkney)	0%	0%	0%	4%	4%	41%	50%	100%	70
Ferry (to Scottish Mainland/ Shetland)	0%	0%	0%	0%	5%	64%	31%	100%	74
Aeroplane	0%	0%	0%	0%	0%	64%	36%	100%	72

**Table F2: Households with One Car Available: Frequency of use of different forms of transport**

Mode of Travel	Every day	At least three times a week	Once or twice a week	At least 2 to 3 times a month	At least once a month	Less than once a month	Never	TOTAL	Total N
Unaccompanied Car Driver	35%	26%	17%	3%	2%	2%	14%	100%	345
Car Driver with Passengers	13%	29%	24%	10%	6%	6%	14%	100%	324
Car Passenger	8%	25%	23%	13%	9%	15%	7%	100%	320
Taxi	1%	1%	3%	8%	10%	41%	36%	100%	291
Local Bus (scheduled)	0%	2%	3%	4%	3%	18%	70%	100%	277
Dial-a-Bus	0%	0%	1%	0%	1%	2%	96%	100%	262
Coach/bus (UK Mainland)	0%	0%	0%	0%	0%	43%	56%	100%	270
Walk	48%	19%	13%	7%	3%	4%	6%	100%	355
Motorcycle	0%	1%	2%	1%	0%	1%	96%	100%	261
Pedal Cycle/Bicycle	3%	9%	5%	4%	3%	11%	65%	100%	279
Ferry (within Orkney)	1%	1%	2%	2%	4%	64%	26%	100%	312
Ferry (to Scottish Mainland/ Shetland)	0%	0%	0%	0%	0%	90%	9%	100%	334
Aeroplane	1%	0%	0%	1%	2%	81%	16%	100%	322

**Table F3: Households with Two (or more) Cars Available: Frequency of use of different forms of transport**

Mode of Travel	Every day	At least three times a week	Once or twice a week	At least 2 to 3 times a month	At least once a month	Less than once a month	Never	TOTAL	Total N
Unaccompanied Car Driver	57%	18%	15%	3%	0%	1%	6%	100%	231
Car Driver with Passengers	26%	29%	22%	8%	2%	6%	7%	100%	214
Car Passenger	10%	22%	28%	15%	8%	10%	7%	100%	206
Taxi	0%	1%	2%	4%	10%	50%	35%	100%	200
Local Bus (scheduled)	0%	1%	0%	1%	3%	11%	85%	100%	196
Dial-a-Bus	0%	0%	0%	0%	0%	2%	98%	100%	192
Coach/bus (UK Mainland)	0%	1%	0%	0%	1%	21%	78%	100%	193
Walk	34%	23%	17%	8%	3%	7%	8%	100%	221
Motorcycle	0%	0%	2%	2%	1%	2%	94%	100%	192
Pedal Cycle/Bicycle	1%	5%	7%	5%	7%	15%	62%	100%	195
Ferry (within Orkney)	1%	2%	3%	6%	3%	63%	23%	100%	208
Ferry (to Scottish Mainland/ Shetland)	0%	0%	0%	0%	1%	96%	3%	100%	221
Aeroplane	0%	0%	0%	1%	1%	85%	12%	100%	216

**Table F4: Intrazonal Car Trips**

Zone	Intrazonal Car Trips
A	208
B	56
C	0
D	8
E	320
F	122
G	474
H	378
I	0
J	132
K	0
L	116
M	0
N	252
O	818
P	50

**Table F5. Top 15 car trips within Kirkwall Town (Zones G to N)**

<b>Origin and Destination Zone</b>	<b>Total Car Trips</b>	<b>Rank</b>
G & H	2,502	<b>1</b>
G & N	2,353	<b>2</b>
G & J	1,510	<b>3</b>
G & L	1,484	<b>4</b>
H & N	1,383	<b>5</b>
G & K	1,136	<b>6</b>
H & M	1,061	<b>7</b>
I & N	864	<b>8</b>
H & K	862	<b>9</b>
H & L	722	<b>10</b>
J & N	674	<b>11</b>
L & N	602	<b>12</b>
G & I	558	<b>13</b>
G & M	503	<b>14</b>
H & J	500	<b>15</b>

**Table F6. Gender and Short Car Trips**

Gender	frequent short car trips	infrequent short car trips	no short car trips	TOTAL	Total N
Male	36%	30%	34%	100%	288
Female	40%	30%	30%	100%	361
<i>Total</i>	<i>38%</i>	<i>30%</i>	<i>32%</i>	<i>100%</i>	<i>649</i>

**Table F7. Age and Short Car Trips**

Age	frequent short car trips	infrequent short car trips	no short car trips	TOTAL	Total N
65+ years	42%	32%	26%	100%	146
55 to 64 years	33%	29%	38%	100%	127
45 to 54 years	46%	25%	28%	100%	114
35 to 44 years	37%	26%	38%	100%	101
16 to 34 years	31%	39%	30%	100%	134
<i>Total</i>	<i>38%</i>	<i>31%</i>	<i>32%</i>	<i>100%</i>	<i>622</i>

**Table F8. Car Ownership and Short Car Trips**

Age	frequent short car trips	infrequent short car trips	no short car trips	TOTAL	Total N
No Car	27%	32%	41%	100%	63
One Car	43%	35%	22%	100%	357
Two or More Cars	33%	21%	45%	100%	219
<i>Total</i>	<i>38%</i>	<i>30%</i>	<i>32%</i>	<i>100%</i>	<i>639</i>

**Table F9. Health and Short Car Trips**

Long-standing illness, health problem that limits travel choices	frequent short car trips	infrequent short car trips	no short car trips	TOTAL	Total N
Yes	43%	29%	28%	100%	111
No	37%	31%	32%	100%	534
<i>TOTAL</i>	38%	30%	31%	100%	645

**Table F10. Bluebadge and Short Car Trips**

Bluebadge Holder	frequent short car trips	infrequent short car trips	no short car trips	TOTAL	Total N
Yes	47%	26%	27%	100%	62
No	38%	30%	32%	100%	575
<i>TOTAL</i>	39%	30%	31%	100%	637

**Table F11. Concessionary Travel Pass and Short Car Trips**

Concessionary Travel Pass	frequent short car trips	infrequent short car trips	no short car trips	TOTAL	Total N
Yes	42%	28%	30%	100%	222
No	35%	32%	34%	100%	342
<i>TOTAL</i>	38%	30%	32%	100%	659

**Table F13. Driving Licence and Short Car Trips**

Driving Licence	frequent short car trips	infrequent short car trips	no short car trips	TOTAL	Total N
Full Licence	39%	28%	33%	100%	538
No Full Licence	37%	36%	27%	100%	100
<i>TOTAL</i>	<i>38%</i>	<i>30%</i>	<i>32%</i>	<i>100%</i>	<i>659</i>

**Table F14 Reasons for Using Car Based Modes**

Reasons for Using Car Based Modes	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Total N
I cannot always park at my destination	16%	15%	24%	20%	26%	100%	348
There are a lot of bad/dangerous drivers on Kirkwall's roads	11%	15%	41%	15%	18%	100%	342
There are a lot of inconsiderate drivers on Kirkwall's roads	10%	16%	31%	24%	19%	100%	344
Kirkwall's roads are in poor condition	17%	23%	36%	15%	10%	100%	343
There are too many cars on Kirkwall's roads	12%	17%	44%	15%	11%	100%	348
Traffic congestion is a big problem in Kirkwall	23%	24%	28%	13%	13%	100%	347
The cost of petrol/diesel is too high	3%	1%	11%	19%	66%	100%	355
There are not enough parking spaces in Kirkwall	6%	7%	25%	22%	40%	100%	350
Too much of Kirkwall's road space is given to other road users other than drivers	22%	21%	46%	5%	6%	100%	341
There are a lot of delays in Kirkwall caused by road works	9%	11%	34%	26%	19%	100%	346
Cyclists and pedestrians are a problem on Kirkwall's roads	35%	21%	33%	6%	5%	100%	345



**Table F15 Problems Faced by Car Users**

Problems Faced by Car Users	Response					Total	Total N
	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree		
Cyclists and pedestrians are a problem on Kirkwall's roads	35%	21%	33%	6%	5%	100%	345
Too much of Kirkwall's road space is given to other road users other than drivers	22%	21%	46%	5%	6%	100%	341
Kirkwall's roads are in poor condition	17%	23%	36%	15%	10%	100%	343
Traffic congestion is a big problem in Kirkwall	23%	24%	28%	13%	13%	100%	347
There are too many cars on Kirkwall's roads	12%	17%	44%	15%	11%	100%	348
There are a lot of bad/dangerous drivers on Kirkwall's roads	11%	15%	41%	15%	18%	100%	342
There are a lot of inconsiderate drivers on Kirkwall's roads	10%	16%	31%	24%	19%	100%	344
There are a lot of delays in Kirkwall caused by road works	9%	11%	34%	26%	19%	100%	346
I cannot always park at my destination	16%	15%	24%	20%	26%	100%	348
There are not enough parking spaces in Kirkwall	6%	7%	25%	22%	40%	100%	350
The cost of petrol/diesel is too high	3%	1%	11%	19%	66%	100%	355

**Figure F16 Current Approach to Car Use**

Current Approach to Car Use	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Total N
I am actively trying to use my car less	10%	7%	36%	24%	22%	100%	331
I find traveling by car stressful	20%	21%	31%	21%	7%	100%	329
I am not interested in reducing my car use	26%	23%	33%	7%	11%	100%	333
I would like to reduce my car use but there are no practical alternatives	11%	11%	34%	24%	20%	100%	332
When I am getting ready to go out, I usually don't think about how I am going to travel, I just get in my car	18%	20%	21%	20%	21%	100%	331
Reducing my car use would make me feel good	8%	7%	44%	23%	19%	100%	328
It would be easy for me to reduce my car use	24%	26%	27%	14%	9%	100%	327
I would be willing to pay higher taxes on car use if I knew the revenue would be used to support public transport	41%	19%	26%	9%	6%	100%	329
I have recently reduced my normal driving speed	12%	13%	52%	15%	9%	100%	328
I am actively trying to use my car less	10%	7%	36%	24%	22%	100%	331
I find travelling by car stressful	20%	21%	31%	21%	7%	100%	329

**Table F17. Perceptions of Disbenefits of Car Use**

Perceptions of Disbenefits of Car Use	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Total N
Car use makes Kirkwall less attractive to residents and visitors	17%	9%	44%	19%	11%	100%	385
Car use adds to traffic noise	4%	6%	34%	36%	21%	100%	388
Car use increases the risk of collisions with pedestrians and/or cyclists	5%	8%	34%	32%	21%	100%	387
Car use increases the risk of collisions with other cars	5%	6%	38%	32%	19%	100%	383
Car use reduces air quality in Kirkwall	7%	9%	35%	32%	17%	100%	384
Contributes to global warming/climate change	3%	7%	27%	40%	23%	100%	385
There are no drawbacks to car use	31%	19%	36%	7%	8%	100%	264

**Table F18. Perception of Environmental Issues**

Perceptions of Environmental Issues	Strongly Disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total	Total N
It is important to build more roads to reduce congestion	22%	24%	38%	9%	6%	100%	391
The car a person owns says a lot about the kind of person they are	14%	13%	38%	25%	10%	100%	399
People should be allowed to use their cars as much as they like, even if it causes damage to the environment	19%	30%	36%	10%	5%	100%	396
Being environmentally responsible is important to me as a person	3%	6%	25%	38%	27%	100%	408
Environmental threats such as global warming have been over exaggerated	19%	23%	36%	15%	7%	100%	391
For the sake of the environment, car users should pay higher taxes	38%	23%	25%	10%	5%	100%	397
The government should take more of a lead in protecting the environment, even if people don't like it	7%	13%	32%	26%	21%	100%	396

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