

## 10 TRANSPORTATION

### 10.1 Introduction

10.1.1 The Falkirk Council area lies at the hub of the national road and rail networks. This accessibility to strategic transport routes has been a key element in the creation of Falkirk's current landscape. Easy access to rail and canal routes linking Edinburgh and Glasgow was a factor in the industrial development of the area. In recent times, the development of the Central Scotland motorway network has consolidated this position. The port of Grangemouth has also provided good direct access to maritime transport for the Falkirk Council area.

### 10.2 National Planning Policy

#### GOVERNMENT WHITE PAPERS ON TRANSPORT

##### A New Deal for Transport: Better for Everyone

10.2.1 National transport policy has in recent years been subject to major debate in response to problems associated with increased car ownership and use. In July 1998, the Government published a White Paper on Transport, "A New Deal for Transport: Better for Everyone". This sets out the Government's transport policy and it has been followed by the publication of a number of related papers consulting on a variety of transport issues, culminating in the publication of the Integrated Transport Bill in February 2000.

10.2.2 The general thrust of the Government's transport policy is to reduce dependence on the motor car for personal travel, by promoting public transport, walking and cycling as modes of travel. The Government recognises the health, safety and environmental benefits to be gained from following such policies. It also recognises, however, that changing public attitudes to travel behaviour will be a long-term task. This will require significant investment to ensure that alternative modes of travel are attractive, safe and convenient for the public to use. In addition there will be a further need for legislative changes to give local authorities certain powers relating to road pricing, workplace parking levies, and increased control over bus services, and the Government's proposals in this respect are outlined in the Integrated Transport Bill.

#### Travel Choices for Scotland

10.2.3 The Government recognises that Scotland has particular characteristics that distinguish it from the remainder of the United Kingdom. Accordingly, the Scottish Office published a Transport White Paper for Scotland, "Travel Choices for Scotland", alongside the main White Paper. This document outlines how the national transport policy can be applied to Scotland, and establishes the policy framework for transport in Scotland within which local authorities will need to operate. The Scottish Office have also published a number of consultation papers regarding the preparation of Local Transport Strategies (see below) and the future management of Scotland's Trunk Road network.

## **NPPG 17 & PAN 57 “TRANSPORT AND PLANNING”**

- 10.2.4 In the two White Papers the Government recognises the role that the planning system has to play in promoting the new national transport policy. In particular, planning future land use changes so that new development proposals supplement transport policy is a key objective for both central and local government. Accordingly, in April 1999 the Scottish Office published a new National Planning Policy Guidance and Planning Advice Note on Transport and Planning. These provide guidance and advice on the use of the planning system to assist the implementation of the national transport policy by encouraging new development at locations which minimise the need for travel, and which are easily accessible by sustainable modes of travel. The requirement for developments that are likely to generate a significant amount of travel demand to provide for access by non-car modes of travel and to produce a Green Transport Plan is also stressed. All new developments should also comply with the local authority's Local Transport Strategy (see below).

## **ROAD TRAFFIC REDUCTION ACT 1997**

- 10.2.5 This Act places a statutory duty upon local authorities to produce a Road Traffic Reduction Plan. This should contain local targets for the reduction of road traffic. The Scottish Office has issued draft guidelines on the application of this Act, and the first Road Traffic Reduction Plan will need to be published by October 2000. A consultative draft of the Plan was produced in July 1999. A second Act, passed in 1998, requires the Government to produce national targets for road traffic reduction. The Government intends to identify these targets by October 2000.

## **ENVIRONMENT ACT 1995**

- 10.2.6 Another piece of legislation which has implications for the transport policies of local authorities is the Environment Act 1995. This requires local authorities to monitor air quality within their areas, and to identify any locations where air quality is poor because of vehicle emissions. Where such problems do occur, the local authority is required to designate the location an Air Quality Management Area, and to produce an Action Plan outlining the measures that will be taken to improve air quality (e.g. road closures/restrictions). The Act establishes certain air quality targets which should be met by 2005.

## **10.3 Local Transport Policy INTERIM TRANSPORT POLICY**

- 10.3.1 In November 1996, Falkirk Council published its Interim Transport Policy (ITP). This broadly reflects the transport policies contained in the Central 2000 Structure Plan produced by Central Region. These policies are, in a regional context, generally similar to those contained in the recent White Papers, with the main principles being to introduce measures to promote sustainable modes of transport and to reduce the dependence of the local population on the car. This policy has guided decisions on transport investment made by Falkirk Council since its formation in April 1996. The following strategies, considering specific areas of transport, have been produced following the publication of the ITP:
- \* *Parking Strategy (October 1997);*
  - \* *Traffic Calming Strategy (March 1998);*
  - \* *Cycling Strategy (May 1998);*
  - \* *Railway Strategy (January 1999); and*
  - \* *Road Safety Plan (in preparation).*

## LOCAL TRANSPORT STRATEGY

10.3.2 The Scottish Office, in Travel Choices for Scotland, state that they will encourage local authorities to produce a Local Transport Strategy (LTS). Such strategies will be required to support any bids which a Council may wish to make for funding, and therefore most Councils will produce a LTS. The Scottish Office effectively intends the LTS to be an implementation plan for a Council's transport policy. A consultative draft LTS has been produced, with a full LTS being produced for October 2000. The Scottish Office has stated that a LTS can incorporate a local authority's Road Traffic Reduction Plan.

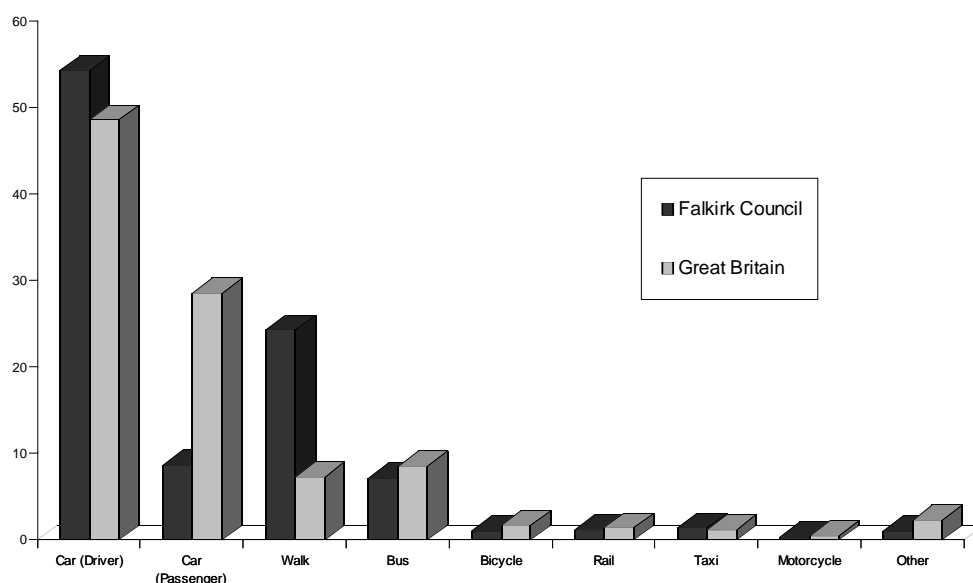
## 10.4 Existing Travel Patterns

10.4.1 Falkirk's central location within the Central Belt of Scotland, and easy access to the main road and rail networks, results in a fifth of all journeys made by Falkirk area residents being to or from places outside the Council area. There are a large number of journeys which are made on a very local basis, however, with 39% being contained within individual settlements.

### MODE OF TRAVEL

10.4.2 Two-thirds of the trips made by Falkirk Council residents are made by car, either as driver or as a passenger. Even on a very local level, within individual settlements, the car is an important mode of travel, with as many journeys being made by car as on foot. Almost a quarter of all journeys are made on foot, however, with this mode of travel being particularly important for very local trips. The only other mode of travel which is particularly significant in terms of overall trips is bus travel, which accounts for 7% of the trips made by Falkirk Council residents. Figure 10.1 summarises the mode used for trips made by Falkirk Council residents.

**Figure 10.1 – Proportion of Trips Made by Mode of Travel**



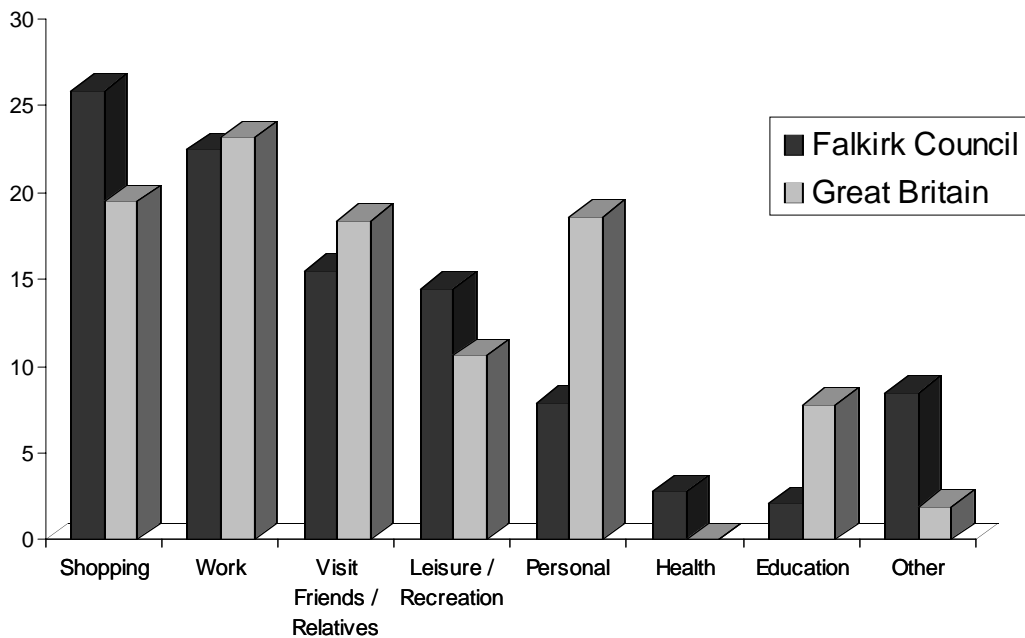
*Sources - 1998 Household Survey (Falkirk Council) - 1993/95 National Travel Survey*

10.4.3 In comparison to the data from the National Travel Survey, a greater proportion of journeys are made on foot in the Falkirk Council area. This may be due to under-reporting of such trips in the National Travel Survey, which only records journeys over a mile in length.

### **JOURNEY PURPOSE**

10.4.4 Just over a quarter of trips made by Falkirk Council residents are for shopping purposes, whilst just over a fifth are work related. The other significant reasons for making journeys are visiting friends or relatives, or for recreation/leisure purposes. Figure 10.2 below summarises the journey purposes information.

Figure 10.2 – Proportion of Trips Made by Journey Purpose



Sources - 1998 Household Survey (Falkirk Council) - 1993/95 National Travel Survey

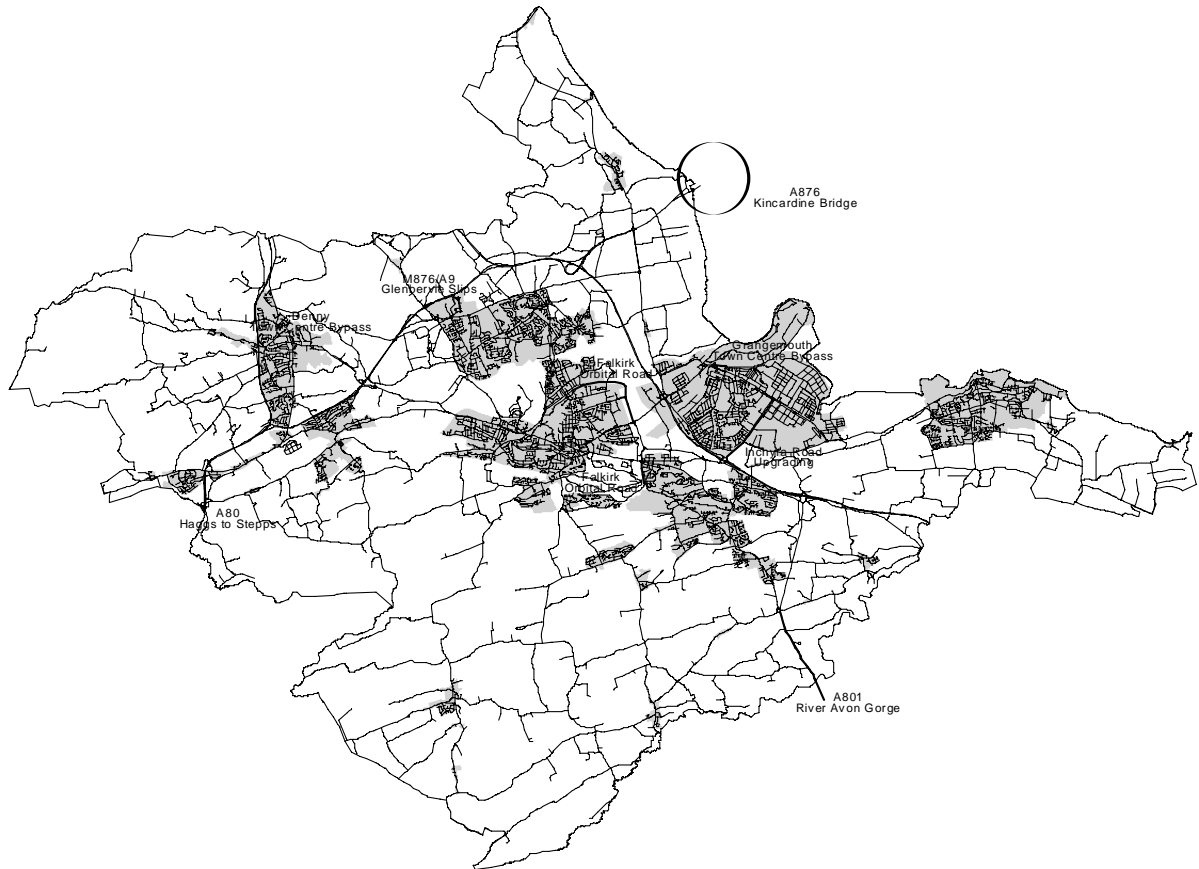
Note - the proportion of trips made within the Falkirk Council area for Education purposes may be under-reported as the survey was undertaken in June/July.

10.4.5 In summary, travel patterns within the Falkirk Council area are broadly similar to those occurring on a national level. There are some notable differences, such as the greater importance of walking as a mode in the Falkirk Council area, which are partly explained by different survey criteria. In general, however, the car is the dominant mode of travel within the Falkirk Council area, whilst over half the trips made are for either shopping or work related purposes. Therefore, if a more sustainable travel pattern is to be encouraged in the Falkirk Council area, key land use considerations are the location of new housing, retail and employment facilities.

## THE ROAD NETWORK

- 10.4.6 The M80, M876 and M9 motorways all pass through the Falkirk Council area. These provide direct road links to Edinburgh, Glasgow, Stirling and to Fife via the A876 (T) Kincardine Bridge. These routes are part of the Trunk Road network, the management of which is the responsibility of the Scottish Office. Within the Falkirk Council area, there is approximately 45 km of the Trunk Road network, of which 41 km is motorway.
- 10.4.7 The local road network comprises 101 km of A class roads, and 603 km of other roads. This network provides links to the motorway network from local communities, and links between individual settlements. The network is managed by Falkirk Council, and is vital to the movement of people and goods in the local area. The key local routes are:
- \* *A801 – provides the main link southwards to Livingston / Bathgate;*
  - \* *A803 – the main East – West route through the Falkirk area;*
  - \* *A9 – connects Falkirk to Larbert and Stirling;*
  - \* *A904 – Falkirk – Grangemouth – Bo’ness; and*
  - \* *A9 Laurieston Bypass – provides the direct route from Falkirk to the M9.*
  - \* *A9 Falkirk Northern Distributor Road - completed in April 2000. Provides a bypass for Falkirk Town Centre.*
- 10.4.8 The construction of the Laurieston Link Road and Bypass, and the Wholeflats Link Road have improved accessibility to the motorway network for local communities. Other new road projects which are contained in the Council’s capital programme are:
- \* *Boyd Street Diversion, Laurieston - Completion programmed for October 2000;*
  - \* *Upgrading of the A905/B9143 Inchyra Road, Grangemouth - programmed for 2001/02/03; and*
  - \* *Upgrading of the M876/A9 Glenbervie Interchange near Larbert by constructing Eastbound slip roads - programmed for 2001/02. This scheme is being jointly promoted with the Scottish Office and Forth Valley Enterprise.*
- 10.4.9 The improvement of the A801 at the River Avon Gorge is not currently contained in the Council’s capital programme, but remains a priority project should funding become available. Finally, in November 1999 the Scottish Executive published the Strategic Roads Review which includes two schemes affecting access to the Falkirk Council area, these being the Kincardine Bridge improvement and the upgrading of the A80 between Hags and Stepps to motorway standard. Design work is progressing on the Kincardine Bridge scheme, although no construction programme has yet been identified. The A80 route is the subject of a multi-modal transport study that has been commissioned by the Scottish Executive.

## Map 10.1 Road Network & Commitments



### ROAD SAFETY

10.4.10 In addition to these new road projects, there is an ongoing programme of smaller projects which are intended to improve safety for all road users, to improve the circulation of traffic, and to improve the local environment by reducing the impact of traffic on local communities. These projects include traffic calming schemes, junction improvements, the installation of pedestrian crossing facilities, the upgrading of street lighting, and the construction of cycling facilities. In addition, a programme of bridge strengthening works is being progressed to ensure that all structures on the road network are capable of use by heavy goods vehicles where necessary.

10.4.11 The safety of all road users is one of the primary responsibilities of the Council. The Council is committed to the reduction of road accident casualties and is intending to reduce the number of these by a third over the 1985–2000 period, in line with national road casualty reduction targets. The Council is currently preparing a Road Safety Plan, which will provide detailed information on road safety issues for the Falkirk Council area. A summary of the current casualty numbers compared to the 1981-85 baseline is given below.

**Figure 10.3 - Road Casualties in the Falkirk Council Area**

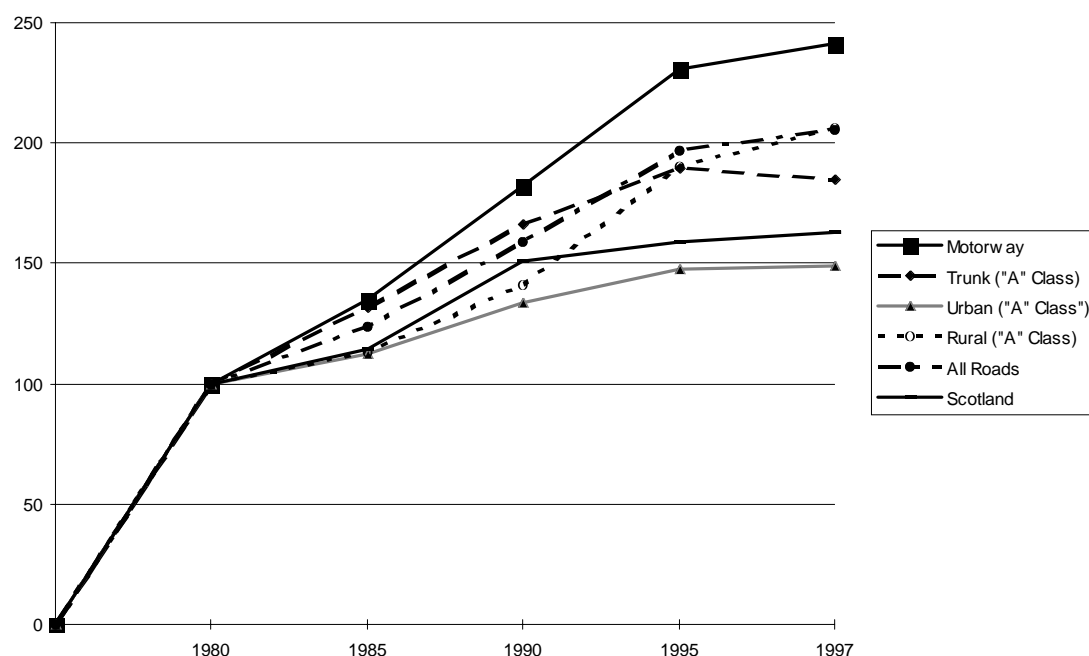
Casualty Type	1981-85 average	1993-97 average	% change
<b>All Casualties –</b>			
Falkirk Council	562	492	-13.1%
Scotland	27,141	22,613	-16.7%
<b>Killed / Seriously Injured-</b>			
Falkirk Council	219	116	-47%
Scotland	8,890	5,160	-42%

10.4.12 It can be seen that the reduction in casualties in the Falkirk Council area is broadly in line with national trends, and that particular progress has been made in reducing the number of fatalities and serious injuries suffered on the road network.

**TRAFFIC GROWTH**

10.4.13 The amount of traffic on the Falkirk Council area road network has effectively doubled in the period 1980–1997. Figure 10.4 summarises the traffic growth for different classes of road.

**Figure 10.4 – Traffic Growth on the Falkirk Council Area Road Network**



10.4.14 From these figures, it is apparent that traffic growth in the Falkirk Council area has been far higher than for Scotland as a whole during the 1990s. Traffic on the motorway network has been particularly high. Figure 10.5 lists traffic flows for key links on the road network in the Falkirk Council area. In general, there are relatively few links on the network that are prone to traffic congestion. The main locations at which congestion does occur are on the main radial roads into Falkirk town centre and on the unimproved sections of the Trunk Road network at Castlecary and the Kincardine Bridge.

**Figure 10.5 Traffic Flows on Key Links of the Falkirk area Road Network**

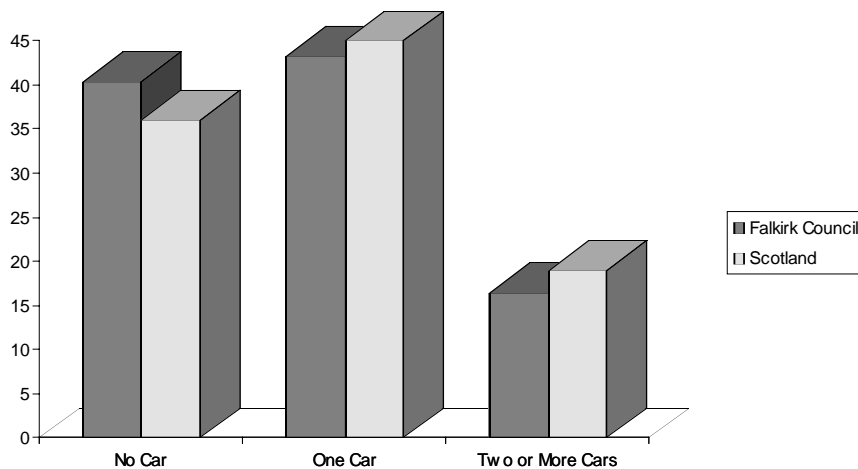
Motorways	A.M. PEAK	P.M. PEAK	ALL DAY	CAPACITY
M80 - North of Hagsgs	n/a	n/a	58767	67000 (all day)
M80 - Denny	n/a	n/a	29152	41000 (all day)
M876 - W. of Junction 1	3429	2949	29615	41000 (all day)
M876 - Between J.1 & J.2	3446	3021	28932	41000 (all day)
M876 - E. of Junction 2	2650	2392	23438	41000 (all day)
M876 - Between M9 & J.3	3565	3117	30654	41000 (all day)
<b>Trunk Roads</b>				
A80 at Castlecary	4265	5073	58304	39000 (all day)
A876 Kincardine Bridge	2535	2291	25054	21000 (all day)
<b>Local Roads - A Class</b>				
A706 S. of Bo'nness	343	400	4470	13000 (all day)
A801 between M9 & B825	863	791	7695	21000 (all day)
A801 at River Avon Bridge	950	874	8554	13000 (all day)
A803 E. of M9 J.4	823	862	9282	13000 (all day)
A803 between M9 & Polmont	715	954	9783	13000 (all day)
A803 between Polmont & Laurieston	815	968	11092	13000 (all day)
A803 at Callendar Park	1728	1805	19326	2200 (peak)
A803 at Falkirk Post Office	1202	1451	17316	1700 (peak)
A803 at Arnohill, Falkirk	1610	1813	20786	2500 (peak)
A803 Main Street, Camelon	1985	2242	25381	2200 (peak)
A803 between A9 & A883, Camelon	1551	1437	16370	2200 (peak)
A803 W. of Bonnybridge	596	562	5441	13000 (all day)
A803 between A872 & M80 Hagsgs	1077	1098	10859	1700 (peak)
A803 W. of Banknock	438	338	4081	13000 (all day)
A872 N. of Denny	771	727	6880	13000 (all day)
A872 Denny Spine Road	554	593	6290	2500 (peak)
A872 S. of Denny	879	1007	10717	2500 (peak)
A88 between A905 & Stenhousemuir	943	886	8828	21000 (all day)
A88 at Bellsdyke Hospital	810	855	9116	2500 (peak)

Local Roads - A Class (cont'd)	A.M.PEAK	P.M. PEAK	ALL DAY	CAPACITY
A88 at Central Business Park	1227	1115	10318	2500 (peak)
A883 between Denny & M876	849	859	9156	13000 (all day)
A883 between A803 & M876	1275	1099	12219	13000 (all day)
A9 Laurieston Bypass	1195	1144	10677	21000 (all day)
A9 S. of A904	1164	1231	12593	21000 (all day)
A9 N. of A803 (FNDR)	1403	1361	13203	1700 (peak)
A9 between Camelon & Larbert	823	911	10103	2500 (peak)
A9 N. of Larbert	783	863	8670	13000 (all day)
A904 at Falkirk College	1220	1409	16448	2500 (peak)
A904 between A9 & M9	1883	1954	21069	2500 (peak)
A904 between M9 & Grangemouth Docks	1128	1283	11394	2500 (peak)
A904 Bo'ness Road, Grangemouth	998	1139	11291	1700 (peak)
A904 between A905 & Bo'ness	1016	1120	10857	13000 (all day)
A904 E. of Bo'ness	559	617	5764	13000 (all day)
A905 N. of M9 J.5	1622	1688	16049	13000 (all day)
A905 between B9132 & M9 J.5	772	954	9267	1700 (peak)
A905 at Skinflats	957	1186	10719	13000 (all day)
A905 between A88 & M876	710	516	6278	39000 (all day)
A905 at Airth	260	318	3985	13000 (all day)
A993 at Bo'ness	693	812	8369	2500 (peak)

## CAR OWNERSHIP

10.4.15 Even though car traffic has more than doubled over the past 17 years and the car is the most popular mode of travel for Falkirk Council area residents, the Falkirk Council area still has a lower rate of car ownership than the national average. Figure 10.6 below shows car ownership data from the 1991 Census.

Figure 10.6 – Car Ownership by Households



10.4.16 It can be seen that 40.3% of households in the Falkirk Council area do not have access to a car. As two-thirds of all trips made by Falkirk Council residents are by car, it is clear that personal mobility is enhanced by having access to a car. Car ownership is likely to continue to increase in the Falkirk Council area and therefore a further increase in the number of trips made can be anticipated. This will mean that achieving road traffic reduction in the Falkirk Council area, in line with Government policy, will be a major challenge.

### **BUS SERVICES**

10.4.17 The Falkirk Council area is well served by bus services to Edinburgh, Glasgow, Stirling and Fife, but has few services offering strategic links to the North and South of Scotland or to England.

10.4.18 The local bus service network is relatively dense, with most communities being served by reasonably regular services, as shown in Map 10.2. The service network has effectively been maintained at its 1985 level of service, with the assistance of subsidy from Falkirk Council to ensure that services that are not commercially viable are retained where they are socially important. The majority of services in the Falkirk area are provided by the locally based operator First Edinburgh.

10.4.19 At a local level, bus patronage trends are difficult to estimate due to the lack of available data on usage levels. Travel diary data indicates that 7% of journeys made by Falkirk Council residents are by bus. Only walking and the private car are more popular modes of transport. Local survey information indicates that there has been a 10% reduction in bus patronage between 1995/96 and 1999/2000, although approximately 6.7 million passenger journeys are made each year in the Falkirk area.

10.4.20 The main bus station in Falkirk town centre is at the East end of the High Street. This is ideally located for people wishing to access the main shopping area within Falkirk (survey information indicates that 48% of people shopping in the pedestrianised part of Falkirk town centre arrived there by bus), or for those working within the town centre itself. At the West end of Falkirk town centre, access to Upper Newmarket Street is restricted to buses only, and this operates as a secondary bus station. Elsewhere, there are small bus stations at Bo'ness and Grangemouth.

10.4.21 There are 1,142 bus stops across the Falkirk Council area. Of these, 37% are provided with bus shelters, and about half the stops are provided with timetable information. The Falkirk Council area has a higher proportion of shelters and timetable cases at stops than most other Council areas in Scotland. The provision of good bus stops facilities is a key element in making the bus an attractive form of travel.

Map 10.2 Bus routes - With frequency greater than or equal to 30min.



## RAIL SERVICES

10.4.22 The main Edinburgh to Glasgow railway passes through the Falkirk Council area, whilst there are lines connecting from this towards Stirling and the North. Freight branch lines serve Grangemouth and Bo'ness. There are five passenger stations in the Falkirk area, these being Camelon, Falkirk Grahamston, Falkirk High, Larbert and Polmont.

10.4.23 Whilst rail only accounts for 1.2% of the journeys made by Falkirk Council residents, it is an important mode for travel to and from Edinburgh, Glasgow and Stirling. In 1999/2000, a total of 1.92 million passenger journeys either started or finished at one of the five stations listed above. The recent trend has been one of increasing usage, with an 11% increase since 1994/95. However, the current usage level is still 6% below the modern peak year for passenger journeys, which occurred in 1990/91.

10.4.24 Since September 1999, the Falkirk Council area has been served by the following rail services:

- \* *Edinburgh – Glasgow – during the day four trains per hour connect Scotland's two main cities, all of which stop at Falkirk High. One train per hour also stops at Polmont;*
- \* *Edinburgh – Stirling / Dunblane – a half-hourly service which calls at Polmont, Falkirk Grahamston and Larbert. Every second train also stops at Camelon. The introduction of new rolling stock on the main Edinburgh – Glasgow service has enabled the transfer of improved rolling stock to these services, improving the quality of service for passengers at Polmont, Falkirk Grahamston, Larbert and Camelon;*

- \* *Glasgow – Falkirk Grahamston – an hourly service now routed through Cumbernauld rather than Lenzie and Croy. This provides a direct train service between Falkirk and Cumbernauld for the first time since 1966;*
- \* *Glasgow – Stirling / Dunblane – a twice-hourly service which stops at Larbert; and*
- \* *other services – Falkirk Grahamston is served by one Inter-City train in each direction every day, plus one overnight sleeper service. One Glasgow – Kirkcaldy train each way also stops at Falkirk.*

10.4.25 This service pattern shows that the Falkirk area generally enjoys a good service to other main towns and cities across Central Scotland, although journeys to Fife, Lanarkshire and to the North and South of the Central Belt generally have to be made via Edinburgh, Glasgow or Stirling.

10.4.26 Changes made to the timetable since September 1999 have significantly improved rail links from the Falkirk Council area to Edinburgh, Glasgow and Stirling through the provision of more frequent services, increased passenger capacity on these key routes, and a higher quality of rolling stock. The provision of a direct rail service to Cumbernauld will also enable a wider range of journeys to be easily made by rail.

10.4.27 In addition to these services, Scottish Railway Preservation Society operates a tourist service between Bo'ness and Birkhill, and has aspirations to extend these to connect to the Edinburgh – Glasgow main line East of Polmont.

10.4.28 The branch line to Grangemouth is increasingly well used by freight trains serving the petrochemicals complex and the Docks. There is evidence of developer interest in the establishment of road / rail freight interchange facilities on the Grangemouth branch line.

10.4.29 Substantial car parks are provided at Falkirk High, Falkirk Grahamston and Polmont stations, whilst smaller car parks are provided at Larbert and Camelon. Parking problems have been identified at Falkirk High, Larbert and Polmont stations and proposals are being developed by Falkirk Council, Railtrack and ScotRail to improve the parking facilities at these stations. A bid for funding from the Public Transport Fund established by the Scottish Office has been successful in securing funds for this work, which will be undertaken in 1999/2000 and 2000/01. Regular bus services serve Polmont, Larbert and Falkirk Grahamston stations, whilst a service operates specifically from Falkirk High to Grangemouth via Falkirk town centre to ensure good accessibility to the station. Cycle parking facilities are available at all stations.

## PEDESTRIANS

10.4.30 Walking is a very important mode of travel for local trips, especially within individual communities. Almost a quarter of all trips made by Falkirk Council residents are made on foot. It is therefore critical that the needs of the pedestrian are fully considered when developing transport policy and land use strategies.

10.4.31 The network of footpaths in the Falkirk Council area is generally good, and the urban nature of the area means that most

main roads have footways alongside them. Some gaps in the footpath network have been filled in recent years, such as that between Reddingmuirhead and Shieldhill. The Greenspace Initiative will also provide a network of off-road footpaths primarily for leisure use.

10.4.32 In Falkirk town centre, the pedestrianisation of the High Street and Callendar Riggs has created an attractive environment for pedestrians. This has strengthened Falkirk's position as a retail centre of some importance. In Grangemouth, a similar, albeit smaller, pedestrianised area exists at the La Porte precinct. Stenhousemuir town centre also has a small pedestrianised area.

10.4.33 A programme of installing pedestrian crossing facilities on the Council's road network to help pedestrians cross the road has become increasingly important as traffic flows have increased. Obviously, the greater the volume of traffic, the more difficult it is for pedestrians to safely cross a road. Facilities include signal controlled crossings (Pelican crossings or Toucan crossings), priority crossings (zebra crossings) and uncontrolled crossings (refuge islands which allow pedestrians to make a two stage crossing of a road).

10.4.34 Increasingly, within new residential developments, shared use streets are favoured. These are appropriate where cul-de-sacs are proposed serving a small number of houses and where low traffic volumes are anticipated. There is no segregation between the road carriageway and the footways on such streets. The objective is to ensure low traffic speeds and to promote a more attractive environment for the residents.

10.4.35 Whilst there has been significant progress in reducing the number of pedestrians who are injured or killed in road accidents, pedestrians are still more likely to be seriously hurt or killed when involved in an accident. In addition to the provision of pedestrian crossings, the implementation of traffic management measures to reduce vehicle speeds in urban areas is an important element of the Council's transport policies. A Safer Routes to School programme is underway, to implement measures to improve the safety of children walking or cycling to school. In addition, the Council provides School Crossing Patrols at 97 locations across the Falkirk area to ensure the safety of children crossing the road at locations with high traffic flows.

## CYCLING

10.4.36 At present, there are relatively few dedicated cycle facilities in the Falkirk Council area. A network of cycle routes is being developed in Grangemouth, with the first section, along the A904 Bo'ness Road, being completed in 1998. Some off-road cyclepaths have been provided as part of the Greenspace Initiative, these being concentrated in the north and east of Falkirk. The towpaths of the Union and the Forth and Clyde Canals also provide good off-road routes for cyclists.

10.4.37 The amount of cycling across the Falkirk Council area is varied. In Grangemouth, where the topography is flat and there is a range of land uses in a relatively compact area, there is a high level of cycling. For example, 13% of work journeys within Grangemouth are made by cycle. This compares with 1.7% of all journeys in Britain. However, in the Falkirk Council area as a whole, approximately 1.1% of journeys are made by cycle.

10.4.38 Sustrans are promoting the construction of a National Cycle Network (NCN). This is being progressed in two stages. A route has been generally identified linking Falkirk to Stirling and Edinburgh, and this is included in the second phase of the NCN which Sustrans have programmed for completion by 2005. In addition, the Millennium Link project to re-open the Union and the Forth and Clyde Canals will include the upgrading of towpaths where necessary to provide a high quality off-road cycle route.

10.4.39 The completion of the Grangemouth Cycle Friendly Town Project is the Council's priority project for cycling infrastructure. A similar project to identify a cycle network within Falkirk is in the early stages of development.

10.4.40 A programme of providing cycle parking facilities at community facilities, such as Council offices, sports centres etc. is ongoing, whilst such facilities are now provided at all new developments.

10.4.41 An important element of promoting cycling is the encouragement of cycling to school. As stated, a Safer Routes to School project is being progressed, and by 2000 measures to promote walking and cycling to school were provided at four Primary Schools in the area. It is intended that this project will be extended to other schools across the Falkirk Council area.

## **PARKING**

10.4.42 Public car parking in the Falkirk Council area is largely managed by Falkirk Council. The demand for car parking is regularly monitored in the main urban centres, and the Falkirk Council Parking Strategy, produced in October 1997, details the general approach to parking provision.

10.4.43 Parking pressures are concentrated in Falkirk town centre, where a total of 4,700 parking spaces are provided in public car parks. Two major car parks, at the Howgate Centre and the Central Retail Park, are privately operated, whilst most of the remaining car parks are Council operated. Falkirk is the only town in the Council area where car parking charges are applied. There are also on-street parking pressures, particularly in residential areas near to the town centre. Overall, the parking supply serving the town centre (on and off-street) amounts to around 5,500 spaces, and surveys have indicated that peak occupancy of these spaces runs at around 63% on weekdays and 91% on a Saturday.

10.4.44 In other urban centres in the Falkirk Council area, there is generally adequate parking provision to cater for demand. Parking problems in other centres tend to be localised, in particular near to Falkirk High, Larbert and Polmont railway stations.

10.4.45 To help relieve pressures on parking in Falkirk town centre, a Park and Ride service has been operated during the Christmas period since 1991. This involves the use of peripheral car parks and the operation of a dedicated bus service connecting these directly to the town centre. In 1999, the service carried 3,808 passengers, and 1,879 cars used the three car parks. At peak

periods, over 200 cars were parked at the Park and Ride sites, this representing a car park of a similar size to that at Kemper Avenue. Usage levels of this service have indicated that there would be some demand for a permanent Park and Ride scheme serving Falkirk and development opportunities at peripheral locations might offer potential for such facilities.

10.4.46 The Council is working with the relevant rail companies to identify improvements to car parking at Falkirk High, Larbert and Polmont stations. These include increasing capacity at these sites and improving the quality of provision (e.g. the installation of CCTV to improve security). In the town centre, minor improvements to existing car parks have been identified and some of these have been implemented, notably the extension of Hope Street Car Park and the improvement of Callendar Square Car Park. Work is currently progressing on the implementation of on-street parking improvements within Falkirk town centre.

## **TRAFFIC MANAGEMENT**

10.4.47 Increasing traffic growth will result in greater pressures upon the existing road network. Whilst traffic congestion in the Falkirk Council area is not currently at serious levels, increased traffic will result in a reduction in the level of service that the travelling public obtain from the network (i.e. travel times will become less reliable). In addition, greater levels of traffic will increase concerns over the impact of road traffic on the local environment. Traffic management measures are generally implemented as a response to specific problems such as localised congestion or road safety problems and can take many forms.

10.4.48 One range of traffic management techniques that can be applied are generally termed traffic calming. These measures are usually intended to reduce vehicle speeds, and vary widely from minor works to major environmental projects. Approximately 60 requests for traffic calming are currently under consideration by Falkirk Council, which adopted a traffic calming strategy in 1998. This strategy involves applying a prioritisation methodology to identify those projects most worthwhile progressing. A key measure which has been identified as a priority is the provision of improved signing at entrances to towns and villages to make drivers more aware that they are entering a community.

10.4.49 Falkirk Council is also participating in a national trial established by the Scottish Office to assess whether the introduction of 20 m.p.h. speed limits in residential areas can be effective at reducing vehicle speeds without the need for expensive traffic calming measures to be constructed. The trial is due to continue until 2000. Three small residential estates, in Dunipace, Falkirk and Grangemouth, have had an advisory 20 m.p.h. zone put in place.

10.4.50 As noted earlier, the local roads most prone to traffic congestion are the main radial roads into Falkirk town centre. On these routes, surrounding land use can often be a major constraint to the widening of roads to increase capacity. Therefore, measures such as the improvement of junctions, the alteration of the road layout to deter parking which may block traffic and linking the operation of signal controlled junctions need to be considered to improve the capacity of these routes. The completion of the Falkirk Orbital Road project will provide the opportunity to review the traffic management on the B902 and the A904 routes.

10.4.51 In other communities, traffic management measures are implemented as and when the need is identified. These are implemented to resolve particular problems that may be identified.

## 10.5 Summary of Main Findings

10.5.1 National forecasts are for traffic growth to continue at the rate of 1.5% per annum over the next 15 years and 1% per annum thereafter. Over the past 20 years, traffic growth in the Falkirk Council area has generally been higher than the national figure. In addition, car ownership in the Falkirk Council area is currently below the national average. There is also relatively little traffic congestion on the Falkirk Council area road network. Therefore, achieving an actual reduction in road traffic in the Falkirk Council area is going to be extremely difficult. In the Council's Road Traffic Reduction Plan, targets are likely to be set for achieving modal shift for specific categories of journey, such as those to Falkirk town centre, workplaces or schools, in preference to setting overall targets. These are the types of journey that the Council has greatest influence over, whereas other journeys are more likely to be influenced by the policies of the Government or private sector transport operators.

10.5.2 As road accident casualties in the Council area continue to decrease, it will become increasingly difficult to further reduce casualty numbers. In particular, the implementation of policies to encourage increased walking and cycling will, if successful, result in more pedestrians and cyclists making journeys. These are road users who are particularly vulnerable to sustaining serious or fatal injuries if involved in a road accident. Therefore, the Council's transport policies might make the achievement of further reducing road accident casualty numbers more difficult in future. This should not, however, be used as a reason for segregating vulnerable road users totally from other traffic. Drivers need to always be aware that other road users may be present.

10.5.3 The general thrust of planning and transport policies, as contained in NPPG 17 and PAN 57, is to direct new development to locations that are fully accessible by sustainable modes of travel. Such locations are often concentrated in town centres, where public transport services tend to be more frequent and serve a greater number of destinations. New development will inevitably generate some new car trips, however and therefore town centre development will place greater pressure on already congested radial roads. This may conflict with the Council's responsibilities regarding air quality. Therefore, the Council will need to achieve a balance between concentrating major new development in town centre areas and protecting the town centre environment.

10.5.4 The Council has limited powers to control bus service networks and quality of service. Often, bus companies will only operate services to serve new development once a significant critical mass has been reached. The Council's general policy is to use its powers and subsidy to retain existing services which are no longer commercially viable for bus companies to operate. With continuing pressure on the available financial resources, the Council is having to exercise great care when identifying priority services for such support. To serve major new developments with public transport, greater use will need to be made of the powers the Council has to reach planning agreements with developers, as outlined in NPPG 17 and PAN 57.

10.5.5 The vast majority of trips made by Falkirk Council residents are made by car, bus or on foot. The greatest potential for reducing car use in the Falkirk Council area would appear to be for local trips, within individual communities and in particular encouraging more local journeys to be made on foot or by cycle. Any new development should therefore give fullest consideration to providing good walking and cycling links to local community and public transport facilities

10.5.6 The Scottish Parliament is likely to introduce legislation enabling local authorities to introduce road charging schemes or a workplace parking levy within their areas. Such schemes are not likely to be operational until 2005 at the earliest. Road user charging on local roads is not likely to be a policy option in the Falkirk Council area, with the use of parking charges in Falkirk town centre being the most appropriate mechanism for charging motorists for accessing the town centre. The majority of the traffic congestion that occurs in the Falkirk Council area is due to retail traffic rather than commuter traffic and therefore a workplace-parking levy applied at the local level is not likely to be effective. The introduction of Green Transport Plans for major employers is likely to be more effective in the short to medium term.

10.5.7 Falkirk Council's Design Guidelines and Construction Standards for Roads specifies minimum standards for roads and car parking associated with new development constructed in the Council area. In Falkirk town centre, it may be more appropriate to specify a maximum parking standard, to minimise the traffic impact of new developments.

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