Station: Stirling
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Executive Summary

Strategic Context

Stirling rail station has a multi-purpose role; firstly as a commuter station to principal employment areas such as Edinburgh, Glasgow and Perth, secondly as a suburban station for local journeys to places such as Dunblane and Falkirk and longer distance journeys to London, Aberdeen and Inverness and thirdly as a destination station for people who work and study in Stirling and for tourists. The majority of services at the station are operated by Abellio ScotRail, with some more limited Virgin Trains East Coast and Caledonian Sleeper services. Between 2005-2006 and 2015-2016, patronage at the station grew by 28%, and the station is now recognised as one of the top ten busiest stations in Scotland.

The 'rail revolution' in Scotland announced by the Transport Minister in 2016, which will deliver the largest programme of improvements for passengers in a generation from 2018, will introduce a number of changes that will benefit passengers travelling to and from Stirling, including the provision of a half hourly service from Dundee to Perth, Stirling and Glasgow, comprised of one limited stop High Speed Train and one regional stopping service that also provides links to Bridge of Allan and Dunblane. In addition, the existing half hourly service from Edinburgh to Stirling and Dunblane will become limited stop, reducing journey times by approximately ten minutes. These improvements will further enhance the attractiveness of rail for longer distance journeys to and from Stirling.

The rail station is located in Stirling city centre, adjacent to the city's main bus station, and its main entrance is orientated to the west towards the main retail area. Ongoing development at the 40 acre Forthside site, which is situated immediately to the east of the station, offers a key opportunity for the station to act as a focal point and centre of activity that links the existing and developing parts of the city centre together. The pedestrian overbridge across the tracks to the south of the station building, which was completed in 2008, was built with the aim of reducing the severance effect of the station between Forthside and the city centre.

Forthside is already home to a series of restaurants, residential accommodation and a hotel, and in future it will accommodate a public-sector hub that draws Stirling Council services together into one location, a National Tartan Centre and a city square, with links to new active travel networks along the River Forth. Stirling's status as an illustrious university town also has a major influence on the nature and demography of the area, with a large seasonal student population. The rail station has a key role to play in accommodating future growth in the demand for travel from residents, employees, students and visitors.

The station buildings offer a range of facilities, including sheltered waiting areas, accessible ticket machines, an on-site Cycle Hub (open since 2013), cycle hire and cycle parking facilities and two on-site car parks that offer a total of 277 spaces, including 8 accessible spaces. Step-free access is available to all platforms except Platforms 9 and 10. The Stirling Station Gateway scheme, which is currently under delivery by Stirling Council in partnership with Abellio ScotRail and Sustrans, seeks to reduce vehicle dominance in the area surrounding the station and improve accessibility to the station for pedestrians, cyclists and public transport users, including pedestrianisation of the station forecourt and improvements to crossing facilities. The Station Travel Plan offers an opportunity to add value to the Gateway scheme, promote rail as the mode of choice for longer distance journeys and encourage the use of sustainable modes for station access.
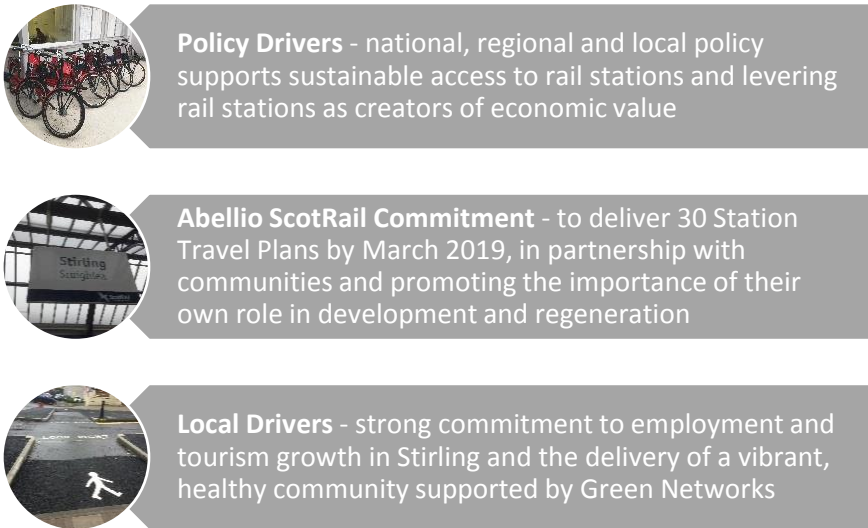
Drivers for Station Travel Plan Development

Station Travel Plans are a tool designed to improve connectivity to and from a rail station, setting out a package of behavioural, operational and infrastructure measures to promote and facilitate effective access, with a focus on sustainable modes such as walking, cycling and public transport. Station Travel Plans provide a mechanism through which the activities of public and private stakeholders can be brought together to achieve common goals, which include:

- Increasing passenger satisfaction;

- Delivering sustainable growth in rail patronage;

- Supporting local and strategic plans for growth and economic development;

- Adding value to work already carried out by community groups; and

- Contributing to wider objectives around health, social equality and sustainable development.

The key drivers for the development of a Station Travel Plan at Stirling are illustrated in Figure 1.

Figure 1: Key Drivers for Stirling Station Travel Plan

Policy Drivers - national, regional and local policy supports sustainable access to rail stations and levering rail stations as creators of economic value

Abellio ScotRail Commitment - to deliver 30 Station Travel Plans by March 2019, in partnership with communities and promoting the importance of their own role in development and regeneration

Local Drivers - strong commitment to employment and tourism growth in Stirling and the delivery of a vibrant, healthy community supported by Green Networks

Setting the Vision, Ambition and Objectives

The following strategic objectives have been developed for Stirling Station Travel Plan, which the measures set out in the Action Plan that follows later in this document are designed to support:

- To support continued growth in patronage at the rail station, in particular to capture a significant proportion of longer distance trips generated by new developments in and around Stirling;

- To promote the development of the rail station as a key hub of activity and a gateway between the existing city centre and the development at Forthside;

- To improve bus/rail integration, to support onward journeys beyond the rail network;

- To manage the demand for rail user car parking at the rail station, helping to release capacity for those travelling longer distances and/or new users;

- To promote and facilitate walking and cycling as the 'modes of choice' for short trips to and from the station;

- To support and enable the improvement of station facilities, helping to deliver an improved customer experience for station users and attracting new users;

- To work in partnership with major employers and developers to support use of the station and help to deliver wider growth and development; and

- To maximise the contribution made by community and voluntary groups to implementing and maintaining the Station Travel Plan, with a strong sense of community 'ownership'.

Identifying the key values of a rail station or transit hub can help to unlock its overall potential, by analysing its existing performance against a series of indicators and identifying the scope and level of ambition for improvement. A Station Travel Plan and its constituent measures can then help to fill in the gaps between the existing situation and the target situation to achieve the desired ambition level.

This approach, which is known as MODe (Mobility Oriented Development), assesses the quality of key elements of transit developments and ranks them against a benchmarked selection of the world's leading transit related developments using a Mobility Oriented Development Index (MODex).

An initial MODex analysis has been undertaken for Stirling, using an adapted version of MODex to help assess the gaps between the current position and ambition level according to four key indicators that are considered appropriate for a station of its size and context. This is shown in Figure 2.

Figure 2: Initial MODex Analysis for Stirling Station
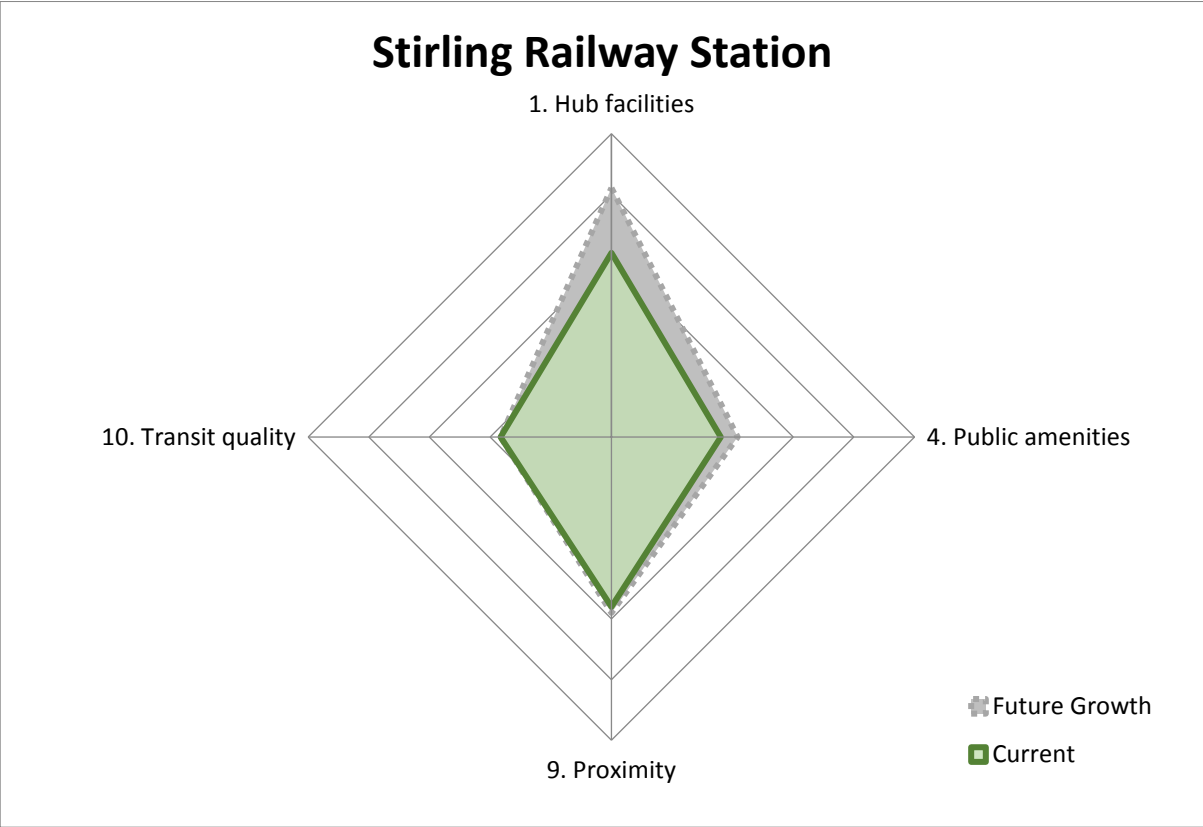
The MODex model in Figure 2 illustrates the areas on which the Station Travel Plan measures could focus. For example, the station currently scores reasonably well for transit quality and proximity, but improvements could be made to public amenities and hub facilities to meet the desired ambition level. This analysis has been used to shape the development of the Station Travel Plan and its constituent measures.

Key Issues and Opportunities

Stirling Station Travel Plan is underpinned by a comprehensive evidence base that has been developed based on a station/site audit, passenger travel surveys, stakeholder engagement and desktop research. All of the evidence has been examined and the key themes drawn out to identify the key issues and opportunities that the Station Travel Plan can help to address.

The most pressing key issues that the Station Travel Plan can help to address are:

1. The number of cycle parking spaces provided at the station is not sufficient to cater to observed existing demand, or likely future demand;

2. Insufficient bus/rail integration, with a lack of clear signage between the two stations, inadequate service information and issues with effective promotion of dedicated summer visitor bus services that link with rail services;

3. A lack of direct station access on the east side of the station, facing Forthside, which contributes to short distance car trips between Forthside and the station car parks on the west side;

4. A lack of dedicated, safe cycle paths on key routes between the rail station and key trip attractors; and

5. Demand for car parking at the rail station is observed to exceed capacity, which will become even more significant with the forecast reduction in on-site car parking spaces as part of the Stirling Station Gateway project.

The key opportunities for the Station Travel Plan are:

- To specify the quality and type of cycle parking provision that will be installed as part of the Stirling Station Gateway project, based on the evidence collected in the passenger travel surveys, stakeholder engagement and desktop research on local demographics;

- To better promote walking and cycling as realistic modes for access to and from the station for journeys under two kilometres (walking) and journeys under five kilometres (cycling), linking in to work already carried out by the Cycle Hub and promoting existing facilities e.g. Bike & Go cycle hire;

- Supporting the evidence base for the provision of a second direct access point on the east side of the station as the Forthside development gathers pace;

- Improving bus/rail integration for longer distance onward journeys, through enhanced information provision and signage – timetable integration has been considered; however, this is very difficult to achieve given that timetables undergo changes throughout the year;

- To support the evidence base for improving key cycle routes between the station and key trip attractors;

- Consolidating and better promoting existing journey planning tools for journeys in and around Stirling, particularly those used by visitors and infrequent travellers;

- Linking in to and adding value to travel planning work undertaken by major trip attractors in Stirling, including Stirling Council and Stirling University; and

- Broadening the focus of Station Travel Plan activity to include other nearby stations such as Bridge of Allan, with ScotRail, Community Rail Partnerships and other stakeholders working together to achieve common goals.

The following quick wins have been identified:

- Provision of Real Time Information (RTI) at the rail station (for buses) and at the bus station (for rail services);

- Improved promotion of Bike & Go cycle hire facilities at the rail station and other key trip attractors such as Stirling University, and/or rationalisation of cycle hire facilities at the station, given the relative popularity of the Next Bike hire facility and the cycle hire facilities provided by the Cycle Hub;

- A promotional campaign for walking and cycling, with a focus on trips to and from the rail station;

- Promoting and/or consolidating existing journey planning tools for travel in and around Stirling;

- Development of an online and printed travel map for Stirling, with a focus on walking, cycling and public transport;

- Improved pedestrian signage and wayfinding between the rail station and the bus station, city centre and tourist attractions;

- Identification of opportunities to work together with Stirling University to promote station usage and bus/cycle links between the rail station and the University; and

- A combined effort to co-ordinate ScotRail's proposed Rail Pastors scheme with the existing Street Pastors scheme that operates in Stirling, to offer support and reassurance to vulnerable passengers on trains, at the station, and during the last mile of their journey.

Action Plan

A detailed Action Plan has been developed, that sets out the measures that will be implemented through the Station Travel Plan to address the key issues and achieve the objectives. The Action Plan covers the period of the current ScotRail franchise, which runs until March 2022. For each action, the timescale for implementation is set out, alongside details of the stakeholders responsible for implementation and potential funding sources. The actions contain a blend of behavioural, operational and infrastructure measures that best meet the existing and future context in Stirling. The Action Plan identifies 23 specific measures, summarised as follows:

1. Strategic Communications

2. Real Time Information

3. Bike & Go / Cycle Hire Promotion

4. Walking and Cycling Promotion

5. Journey Planning Tools

6. Improved Pedestrian Signage

7. Travel Plan Coordination with Stirling University

8. Rail & Street Pastors

9. Additional Eastern Station Access

10. Shuttle Bus / Demand Responsive Tourist Service

11. Rail Promotion to Tourists

12. Promotion of Integrated Ticketing

13. Extended Cycle Audit

14. Improved Station Signage

15. Improved Station Cycle Parking

16. Station Friends

17. Full Station Step Free Access

18. Toilets Signage

19. Left Luggage Facility

20. Promotion of Summer Bus Services

21. Station Centric Sustainable Travel Map

22. Station / Last Mile Re-Audit & Station Travel Plan Update

23. Wider Station Travel Plan Activity

For any Station Travel Plan to be effective, it is essential that a robust ongoing management and monitoring regime is put in place. The ScotRail Station Travel Plans programme places significant emphasis on stakeholder and wider community involvement and ownership, and it is intended that this document becomes a living plan that can be implemented by a Stirling Station Travel Plan Management Group that also takes responsibility for monitoring and refreshing the objectives and measures on an annual basis. This is particularly important in the context of the Stirling Station Gateway Scheme, which will in future change the way in which people use the station and move around the local area.

Station Travel Plan Overview

What is a Station Travel Plan?

Station Travel Plans are a tool designed to improve access to and from rail stations, which set out a package of measures that promote and facilitate the use of sustainable modes, including walking, cycling, public transport and car sharing. STPs provide a mechanism for working collaboratively and coordinating the activities of stakeholders, helping to complement and inform local plan making processes whilst delivering on a number of transport-related and wider economic and social objectives, including:

- Increasing rail passenger satisfaction;

- Delivering sustainable growth in rail patronage, helping to support the business case for station redevelopment and improvement schemes;

- Supporting local and strategic plans for growth and economic development, promoting rail as the mode of choice for longer distance journeys to accommodate growth in the demand for travel;

- Adding value to work already carried out by community groups such as transport improvement schemes, safety campaigns and social equality initiatives; and

- Contributing to the achievement of wider objectives around health, social equality and sustainable development.

A Station Travel Plan can help to lever in funding for standalone or complementary projects that add value to existing initiatives, supporting the business case for grant funding applications and the use of developer funding for transport improvements through Section 75 agreements.

Why Do We Need Station Travel Plans?

Station Travel Plans help to identify and understand local circumstances and wider strategic issues that impact on local peoples' transport choices. Some key triggers are:

- Station access issues that act as a barrier to growth;

- Potential opportunities to increase local customer demand for sustainable forms of travel;

- Links to housing, employment and other proposed developments in the local area;

- Potential opportunities for small but significant changes to walking and cycling routes near to the station; and

- Stimulating stakeholder interest and support for improvements, especially from local authorities, station groups and community representatives.

Achieving mode shift to more sustainable modes for access to and from the station forms one part of developing and implementing the Stirling Station Travel Plan, which will help to address identified issues of excess demand for car parking. The Travel Plan adopts the '5Rs' approach to travel demand management, which encourages people to:

- **'Re-think'** the rationale behind their travel choices;

- **'Re-mode'** to more sustainable alternatives;

- **'Re-duce'** the need to travel on a routine basis;

- **'Re-time'** journeys to avoid the busiest periods; and

- **'Re-route'** journeys to maximise road safety and route convenience.

These concepts were integrated into the rationale for the measures proposed in the Action Plan.

There is also a need to retain and increase the modal share of rail relative to other competing modes of travel along core routes to Glasgow, Edinburgh and other key destinations, to help manage the future increase in demand for travel associated with the new development at Forthside that is directly adjacent to the station.

Enhancing overall passenger satisfaction scores through improved customer service levels is also a key aim that can be achieved through an integrated approach to enhancing the station environment and 'fixing the link' between the station and its surrounding areas.

Good customer service is crucial to ensuring repeat ticket sales, retaining and expanding the modal share of rail relative to other modes of transport, particularly by bus, and prospering relationships between Stirling station and the resident population within the city.

What is in a Station Travel Plan?

Key elements of a Station Travel Plan document can include:

- Solutions to help specific journey types involving an interchange i.e. bus to rail;

- Identification of sustainable alternatives that can reduce single occupancy car use;

- Mechanisms for ongoing partnership working, from informal coordination through to legally binding Service Level Agreements (SLAs);

- An Action Plan to promote sustainable travel, improve the passenger experience and increase rail patronage;

- Helping funders identify and commit future resources towards improvements and

- Providing a framework for coordinating specific elements of local transport and development plans.

The remainder of this document sets out the strategic context in which Stirling Station Travel Plan has been developed, the evidence base that underpins the measures and the Action Plan for implementation.

Strategic Objectives

We have identified a series of strategic objectives for Stirling Station Travel Plan, which set the ambition level and provide a basis for identifying the proposed measures. These have been developed based on consideration of the strategic context of the station, the role that it plays in supporting travel in the local area and further afield, the growth ambition demonstrated by the development plans at Forthside and the Stirling Station Gateway project and the opportunities that exist to make improvements.

The objectives are as follows:

- To support continued growth in patronage at the rail station, in particular to capture a significant proportion of longer distance trips generated by new developments in and around Stirling;

- To promote the development of the rail station as a key hub of activity and a gateway between the existing city centre and the development at Forthside;

- To improve bus/rail integration, to support longer distance onward journeys;

- To manage the demand for rail user car parking at the rail station, helping to release capacity for those travelling longer distances and/or new users;

- To promote and facilitate walking and cycling as the 'modes of choice' for short trips to and from the station;

- To enhance the station facilities, helping to deliver an improved customer experience for station users and attracting new users;

- To work in partnership with major employers and developers to support use of the station and help to deliver wider growth and development; and

- To maximise the contribution made by community and voluntary groups to implementing and maintaining the Station Travel Plan, with a strong sense of community 'ownership'.

Action Planning - SMART Objectives

The measures contained within the Action Plan have been assessed to ensure that they are SMART to be able to withstand scrutiny and the test of time. Each action is therefore:

S – Specific: Measures are relevant to the context, clear, concise and without ambiguity;

M – Measurable: The ability to be able to assess the success of implementing each measure;

A – Achievable: Ensuring that the proposed measures can be adopted in reality;

R – Realistic: The measures can be funded and would receive support and backing and;

T – Time Based: A timeframe is identified for the implementation of each measure.

Strategic Context

Stirling Station

Stirling station, which is located on the former Caledonian Railway main line between Glasgow and Perth, is a key commuter station for journeys to Glasgow, Edinburgh and Perth, served by four trains per hour to Glasgow Queen Street, three trains per hour to Edinburgh Waverley and three trains per hour to Perth during peak times. The station is also served by long distance services to Dundee (hourly), Aberdeen (hourly) and Inverness (four trains per day) and is the junction for the branch line to Alloa, with three trains per hour to Dunblane. The majority of services are operated by Abellio ScotRail, with some limited services offered to London Kings Cross by Virgin Trains East Coast and Caledonia Sleeper services.

The station buildings, which opened in 1916, have undergone several refurbishments in recent years, most recently in 2008/9, when the travel centre was modified to provide disabled access and automated announcements were introduced. Lifts have also been introduced to improve access to the footbridge that links Platform 2 with Platforms 3 to 8.

Table 1 shows the annual changes in patronage (total passengers) at Stirling between 2005-06 and 2015-16. Overall patronage growth of 28% is observed over the ten-year period, which varies from -1% between 2011-12 and 2012-13 and 6.9% between 2013-14 and 2014-15.

Table 1: Stirling Station Patronage Data, 2005-2006 to 2015-16

Year	Total Passengers	Percentage Change (%)
2005-2006	1,905,937	-
2006-2007	1,919,748	0.7
2007-2008	2,027,751	5.6
2008-2009	2,131,928	5.1
2009-2010	2,154,992	1.1
2010-2011	2,267,150	5.2
2011-2012	2,261,826	-0.2
2012-2013	2,238,146	-1.0
2013-2014	2,259,759	1.0
2014-2015	2,415,526	6.9
2015-2016	2,441,644	1.1

Source: Office of Rail and Road

The 'rail revolution' in Scotland that was announced by the Transport Minister in 2016, which will deliver the largest programme of improvements for passengers in a generation from 2018, will enhance service frequencies and improve journey times to and from Stirling. A half hourly service from Dundee to Perth, Stirling and Glasgow will be provided, comprised of one limited stop High Speed Train and one regional stopping service that also provides links to Bridge of Allan and Dunblane. The existing half hourly service from Edinburgh to Stirling and Dunblane will also become limited stop, reducing journey times

by approximately ten minutes. These improvements will help to drive further patronage increases at the station.

Figure 3 shows the location of the rail station in relation to key trip attractors. The station is located on the eastern edge of the city centre, approximately a five-minute walk from the main commercial areas of the Thistles Shopping Centre, Murray Place and King Street. The main entrance to the rail station faces west, in alignment with the concentration of commercial activity in the existing city centre.

However, the ongoing development of the 40 acre Forthside site directly to the east of the station illustrates Stirling Council's ambition to increase activity along the banks of the River Forth and open up the eastern side of the city centre for employment, residential and leisure uses. A cinema, hotel and residential accommodation have already been completed, which are directly linked to the rail station via a pedestrian bridge. Since its completion in 2008, the footbridge has significantly improved the accessibility and connectivity of the station and areas to the east. Future plans set out by Stirling Council include the creation of a new city square, a National Tartan Centre, public realm improvements and a riverbank walkway. The increased concentration of activity in this area provides an opportunity to increase use of the rail station and to enhance the role that it plays in the city.

Figure 3: Stirling Station - Strategic Location
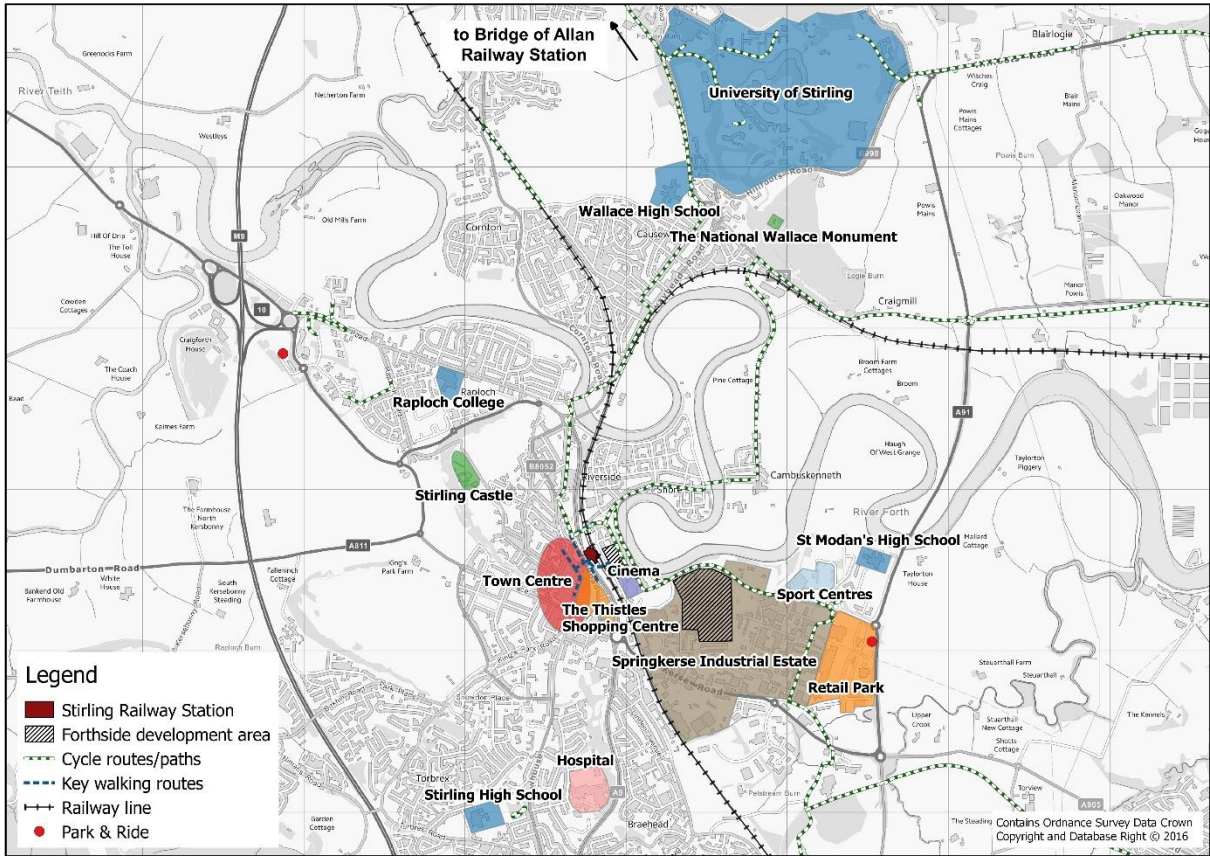
The main access to the station is via the station forecourt on Goosecroft Road, as shown in Figure 4. The station forecourt provides a passenger drop-off/pick-up facility for three vehicles and a dedicated area for taxi services, with capacity for eight vehicles. A pedestrian crossing provides access towards

Station Road for passengers travelling towards the city centre. Pedestrian access is also provided to the city's bus station, which is adjacent to the Thistles Shopping Centre.

Figure 4: Station Forecourt Area

The main concourse area offers a number of facilities, including accessible ticket machines, customer information screens, a coffee shop, a WH Smiths, vending machines, pay phones, an ATM, toilets and an induction loop for people with hearing difficulties. Step-free access is provided via lifts that connect Platform 2 to Platforms 3-8 (Platform 1 is no longer in use). No step-free access to Platforms 9 and 10 on the east side of the station is available.

Figure 5: Station Concourse & Platform Area

Two on-site car parks are provided at the station; the north car park has a total of 100 spaces, with three spaces for Blue Badge holders, and the south car park has a total of 177 spaces, with five spaces for Blue Badge holders. Although the north car park is signed as a car park for season ticket holders only, at the time of the site audit on a weekday mid-morning there was no enforcement of this restriction in place, and both car parks were observed to be operating close to capacity.

A permanent Cycle Hub has been in operation at the station since 2013, offering cycling events, cycle hire, information and support with journey planning. In addition, there is a Bike & Go cycle hire facility located inside the station concourse, and a Next Bike cycle hire facility located in the south car park. Both facilities were observed to be poorly used at the time of the site audit. Cycle parking facilities for

88 cycles are provided via 20 cycle lockers in the north car park and at unsecured facilities on both sides of the station. Cycle parking facilities were observed to be well-used, with evidence of excess demand compared to capacity.

Figure 6: Cycle Hire & Cycle Parking Facilities

A passenger travel survey undertaken by Stirling Council on 25th October 2016 identified the existing mode split for travel to and from the station, as shown in Figure 7. A relatively large proportion of passengers travel via car, with a total of 47% travelling as either a car driver or a car passenger. 28% of respondents reported that they walk to or from the station, 9% travel by bus and 3% cycle.

Figure 7: Existing Mode Split for Travel to and From the Station

- Car Driver 25%
- Car Passenger 22%
- Motorcycle 0%
- Bus 9%
- Bicycle 3%
- Walk 28%
- Taxi 3%
- Train 10%
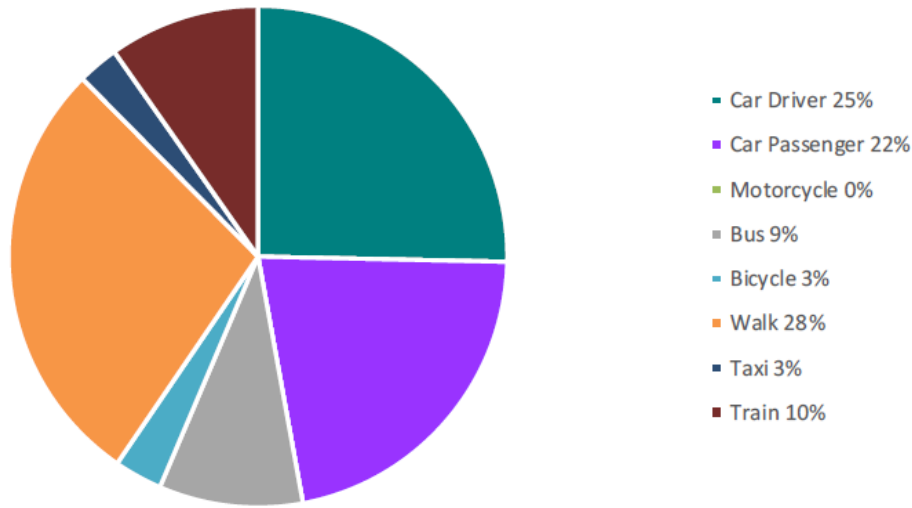
Source: SIAS Survey 2016, undertaken on behalf of Stirling Council (based on a sample of 255 passengers)

The survey also identified the fact that the greatest proportion of respondents' journeys (55%) originated in Stirling, which demonstrates a key opportunity to induce mode shift from car to more sustainable modes for shorter distance journeys.

The Role of the Station in the Wider City

The station plays a key role in the wider city in terms of supporting sustainable access to key employment centres such as Glasgow and Edinburgh and providing local access to Stirling, which is an important tourist destination with attractions such as Stirling Castle and the National Wallace Monument, and which is home to large employers such as Stirling University, which has a student population of approximately 11,000.

The station's central position between the existing city centre to the west and the redevelopment of the Forthside area to the east offers an opportunity for the rail station to support economic development and act as a focal point for community activity and trips between the existing centre and the new Forthside development. However, there is also a risk that the location of the station could act as a barrier to development and cross-area trips if its level of access does not fully cater for all user groups.

The existing and future importance of the station is recognised in local policy. The Stirling City Deal Masterplan (May 2016) outlines proposals for the creation of a new Public Sector Hub directly adjacent to the station, which will bring all Council functions together, and the creation of an active travel network along the river, linking the station with key trip attractors and offering a viable alternative to vehicle travel (refer to Figure 3). It also proposes the development of a riverside park in the Forthside area, with the intention of increasing footfall across the bridge from the station and encouraging people to spend more time in the area rather than simply using it as a through route. The development of a National Tartan Centre at Forthside will draw in additional visitor footfall to the city, and the station can play a key role in helping visitors to access the local area, through appropriate directional signage and information. In the longer term, the increase in activity could support a case for the creation of an additional station access on the east side of the station.

The overall ambition for Stirling, as set out in the Stirling Local Development Plan (September 2014), is to create a modern, vibrant and healthy 'walkable' city that is a key destination for tourists, helping to draw in more investment and businesses and supported by an evolving Green Network. As identified in the Stirling Economic Strategy (2014), more than half of Scotland's population lives within an hour's travel time from Stirling, so there is a real opportunity for the station to support economic growth by maximising its connectivity to and information provision for key trip attractors in the city centre.

In recognition of the importance of the station, Stirling Council is partway through the delivery of Stirling Station Gateway, a two-phase station development scheme supported by the Scottish Stations Fund and delivered in partnership with ScotRail and Sustrans. The objectives of the scheme are to:

- Improve connectivity and accessibility between the rail station, bus station, city centre and Forthside for pedestrians and cyclists;

- Create an integrated public transport / active travel hub – a Cycle Hub is already located at the station; however, there are opportunities to better integrate bus and rail provision and to improve the promotion of active travel;

- Tackle existing safety, congestion and environmental issues to support economic growth; and

- Enhance the local streetscape environment and provide a positive visitor arrival experience.

Phase 1 included the implementation of a one-way system on Murray Place and Station Road, footway widening, the relocation of bus stops and reallocation of bus services, new cycle routes and improved

pedestrian and cycle facilities at junctions and a single central taxi rank on Murray Place. Phase 2 focuses on the station forecourt, with a wide range of proposals as illustrated in Figure 8:

- Provision of a high-quality traffic-free pedestrian plaza on the station forecourt that links key pedestrian desire lines between the rail and bus stations and the city centre and Forthside;

- A new vehicle access to the south car park directly from the A9 Burghmuir Road;

- Enhanced provision of disabled parking and passenger drop-off/pick-up facilities;

- Increased cycle parking (up to 300 spaces) and rationalisation of cycle hire facilities;

- Improved bus/rail/cycle integration and enhanced cross-modal travel information;

- Improvements to station facilities including retail provision, toilets and accessibility; and

- Replacement of the roundabout and pelican crossings at Station Road/Goosecroft Road with a T-junction to maximise accessibility and improve links to the city centre.

Figure 8: Stirling Station Gateway Phase 2 – Proposed Site Plan
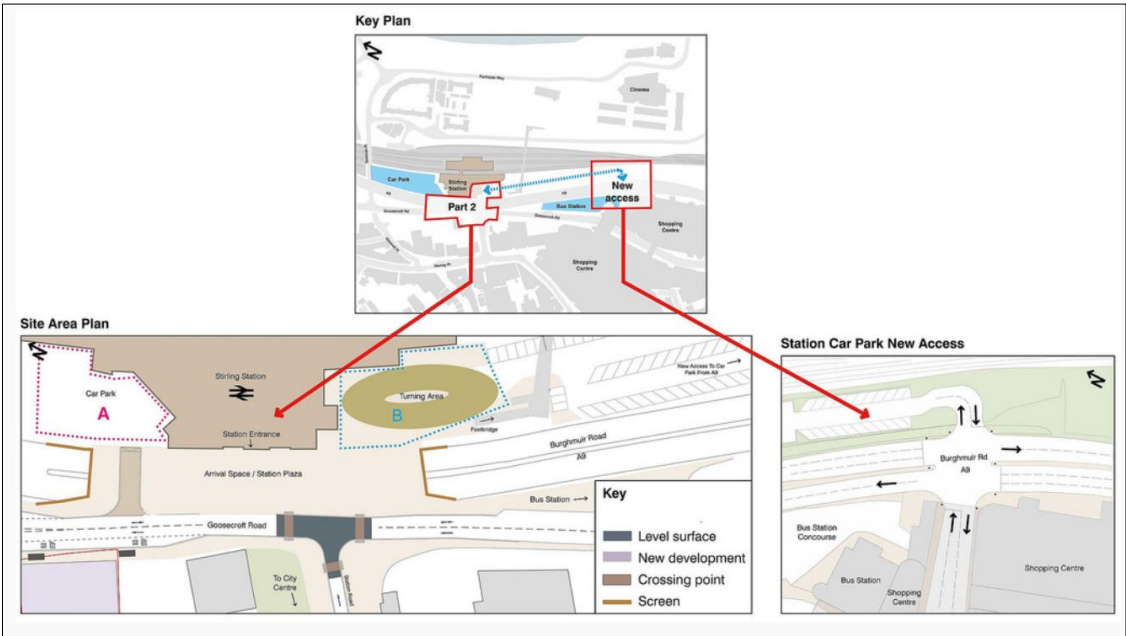
Source: Stirling Council Website, accessed on 31 March 2017 (http://my.stirling.gov.uk/urPix/view/72157662022496251)

The Station Travel Plan offers an opportunity to add value to the Stirling Station Gateway project through the implementation of complementary measures, in particular softer promotional measures that help to publicise the redevelopment work and the enhanced attractiveness of the station area.

Station Travel Plan Drivers

National, Regional and Local Policy Drivers

At the national level, Scottish transport policy focuses on improving accessibility, with a focus on the delivery of a reliable, equitable transport system that supports sustainable economic growth. The development and implementation of Stirling Station Travel Plan will support the delivery of the government's three Key Strategic Outcomes for Transport, as set out in the National Transport Strategy (January 2016):

- *Improved journey times and connections between our cities and towns and our global markets to tackle congestion and lack of integration and connections in transport* – by supporting increased patronage on the rail network, which in turn can help to make the case for increased services and investment in station and rail infrastructure;

- *Reduced emissions, to tackle climate change, air quality, health improvement* – by promoting rail and sustainable connections to rail e.g. walking, public transport and cycling through the Station Travel Plan, and implementing measures that make it realistic for people to make healthier, more sustainable travel choices; and

- *Improved quality, accessibility and affordability, to give choice of public transport, better quality services and value for money, or alternative to car* – the Station Travel Plan and its associated measures will make rail travel a more appropriate and attractive mode for a wider audience, and help to ensure that rail travel is a realistic alternative to the car.

The 2016 refresh of the National Transport Strategy recognises the role that local communities should play in transport decision-making, in particular that resources be directed to priority town centre sites that have good accessibility by public transport, walking and cycling, in order to drive growth and development.

Stirling Station Travel Plan also supports mode-specific policies at the national level, including the 2014 National Walking Strategy and the 2017-2020 Cycling Action Plan for Scotland. The benefits of active travel need to be more widely promoted, including the health and economic benefits but also the social benefits of stronger community building and placemaking that can be achieved through the provision of walking and cycling infrastructure. The Station Travel Plan and its legacy will complement the improvements made through the Station Gateway project, helping to promote active travel more widely as a choice for travel to and from the station.

At the regional level, the TACTRAN (Tayside and Central Scotland Transport Partnership) Regional Transport Strategy (2008-2023) identifies the region as being at the heart of the Scottish rail network, and Stirling is cited as one of the busiest stations in Scotland, and amongst the top six urban passenger arrival centres. TACTRAN supports the proposals set out in the Scotland Route Utilisation Strategy (RUS) to improve capacity between Stirling and Glasgow. It also highlights the need for further cycling links to and from railway station, and improved cycle parking facilities at rail and bus stations. The Station Travel Plan can help to address some of these issues and improve linkages to the rail station to support future capacity increases.

At the local level, Stirling Council has ambitious plans for the continued development of Stirling into a hub for business and a key tourist destination. In order to ensure that growth and development is sustainable, this involves the creation of active travel networks along the River Forth, the provision of

dedicated bus corridors on key routes, including the area served by the station, and station forecourt improvements.

The Stirling City Deal Masterplan (May 2016) sets out an aspiration to create a 'world class active travel network that supports a vibrant city attractive to residents, visitors and business'. The Masterplan includes a proposal for a City Park to the west of Stirling Castle that could attract more than 250,000 visitors, and the focus needs to be on active travel and public transport to reduce the impact on the highway network and to reduce the amount of road capacity increases required.

The Draft Active Travel Plan sets out two goals: to increase the percentage of people walking and cycling in Stirling, and to increase the percentage of children and students walking and cycling to places of education in Stirling. The Station Travel Plan can help to support this, by promoting measures to improve pedestrian and cycle routes to and from the station and offering high quality facilities at the station to support the use of these modes.

Abellio ScotRail's Commitment to Station Travel Plans

As part of the new ScotRail franchise which commenced in 2015, Abellio committed to the delivery of 30 Station Travel Plans over the period to March 2019. Stirling Station Travel Plan is being brought forward in 2017 as part of a package of eight Station Travel Plans in accordance with a framework and toolkit developed through the preparation of pilot plans for Motherwell and Johnstone stations in 2016.

Rather than simply adopt a traditional Station Travel Plans approach which focuses solely on encouraging and facilitating sustainable travel to and from the station, the Abellio programme has a much wider focus on the role that a Station Travel Plan can play in supporting wider growth and development, and in helping local communities to take ownership of that development in a sustainable way. This includes:

- Measures to support increased patronage and engaging with non-users of the station to identify measures to address suppressed demand;

- Reducing dependency on station car parks from existing station users to release space for current non-users;

- Integrating each station into its community, making best use of local volunteers and Local Authorities in Station Travel Plan development, ownership and implementation;

- Identifying and promoting new development near stations, and emphasising the role that the station can play in accommodating travel needs;

- Attracting third party funding, including funding achieved through the planning process; and

- Influencing Local Transport Plans and wider local policy to promote rail usage and enhanced links to and from the station.

Local External Drivers

The local context in Stirling provides a number of drivers for Station Travel Plan development, as illustrated in Figure 9.

Figure 9: Local Station Travel Plan Drivers

Stirling Station Gateway	•Improvements to infrastructure and facilities at the station and in its vicinity delivered / under delivery •Station Travel Plan offers an opportunity to add value to and promote these improvements, and to address any outstanding issues
Aspirations for Growth & Development	•Strong focus on growth and development in Stirling and the wider TACTRAN area •Station Travel Plan offers an opportunity to increase rail patronage and accommodate the growth in travel in a sustainable manner
Community & Voluntary Groups	•Stirling has a number of active voluntary and community groups, which not only help to identify key issues and opportunities that the Station Travel Plan can address, but also provide legacy for the Travel Plan in terms of ongoing implementation and ownership

Research and Emerging Themes

Overview

The evidence base for Stirling Station Travel Plan has been developed based on the following key activities:

- A station site and area audit undertaken on 15th December 2016;

- Passenger travel surveys at the station undertaken on 25th and 28th January 2017;

- On-street public travel surveys undertaken on 25th January 2017;

- Stakeholder interviews undertaken over the period December 2016 to February 2017;

- A stakeholder workshop undertaken on 16th March 2017; and

- Desktop research, comprising policy review, identification of wider development proposals and schemes and research into station patronage data.

Each activity is described in more detail below.

Site and Area Audit

A site and area audit was undertaken for the station and for five key routes to and from the station, in order to identify issues and opportunities associated with usage of the station and travel to and from the station. The audit was undertaken on a mid-week day.

Appendix A provides the full audit template and the audit write-up, and a summary of the issues examined is as follows:

- Station facilities e.g. retail, toilets, accessibility (including step-free access), seating areas;

- Onward travel facilities at the station e.g. travel information, cycle parking, cycle hire, bus/rail integration, car parking;

- Immediate station area e.g. accessibility for cyclists, pedestrians, public transport users, car users; and

- Key routes between the station and key trip attractors in terms of accessibility and facilities, reflecting popular movements and local patterns.

The focus of the audit was not to record every facility or piece of infrastructure in place, but rather to pinpoint the key issues and opportunities that the Station Travel Plan can help to address. The focus was on the quality of infrastructure and evidence of whether demand is adequately met by capacity.

The audit also identified businesses that could support ScotRail's emerging 'Station Friends' programme; an initiative that offers a safe place of refuge to station users when the ticket office is closed, where they may need to wait for a connecting bus service/a lift home, or somewhere safe to make a telephone call and use the toilet facilities. All suitable businesses e.g. petrol stations, late night convenience stores and hotels were identified and noted down for consideration and future potential inclusion in the programme.

Travel Surveys

A full passenger travel survey was undertaken by SIAS Limited on behalf of Stirling Council on 25th October 2016; therefore the decision was taken not to repeat a full travel survey, but to undertake a

short survey with passengers who travel to and from the station by car, to examine their reasons for doing so and to probe the types of measure that could encourage them to travel more sustainably.

The surveys were undertaken using tablets linked to a mobile Wi-Fi device, in order that responses could be collected and saved directly into Survey Monkey. The surveys were undertaken on Wednesday 25th January (07:00-09:00) and Saturday 28th January (10:00-12:00). A total of 267 respondents were surveyed, and the results are presented in Appendix C. It should be noted that the initial question filtered out respondents who did not travel to the station by car on the survey day; therefore the responses reported in Appendix B for the passenger travel survey are for car travellers only.

In addition, a public travel survey was carried out on-street, in the main city centre and retail area. The survey was undertaken on Wednesday 25th January (10:00-16:00). A total of 16 responses were collected, in part due to the poor weather conditions and the fact that there was a large on-street presence by charity collectors and other groups seeking public engagement, which meant that it was difficult to get people to stop and answer questions. Moving forward in the ongoing implementation of the Station Travel Plan programme, information on the views of non-station users will be sought through other channels; for example through major employers.

The passenger travel surveys found that 47% travel to Stirling station by car, either as a driver or passenger, as shown in the mode share chart in Figure 10.

Figure 10 – Passenger Travel Survey – Mode Share

- Car Driver 25%
- Car Passenger 22%
- Motorcycle 0%
- Bus 9%
- Bicycle 3%
- Walk 28%
- Taxi 3%
- Train 10%
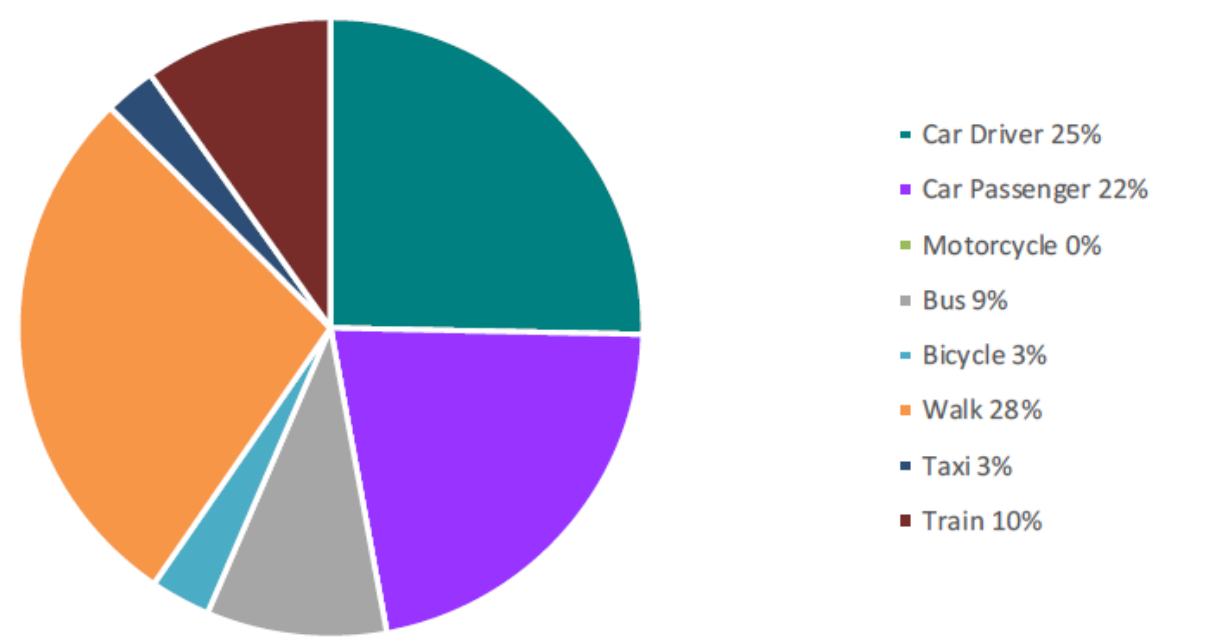
From the car user survey, it was determined that 51% of car users travel from within 5km of Stirling rail station, with 24% travelling from within 2km. A plot of the respondents who shared their home postcodes is shown in Figure 11.

Figure 11 – Car User Survey Postcode Plot
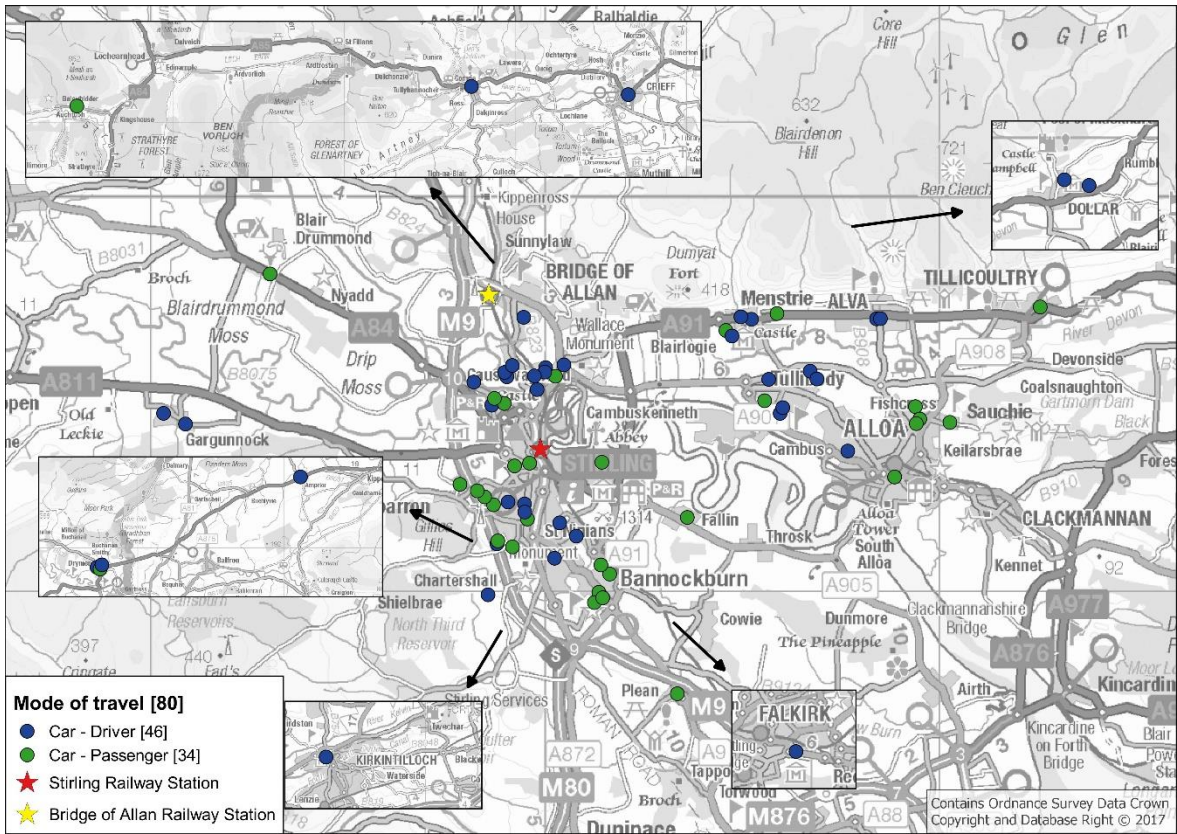
When asked for their main reasons for choosing the car, the top three reasons were journey time, lack of suitable alternatives and journey reliability, as shown in Figure 12.

Figure 12 – Main Reasons for Travelling by Car
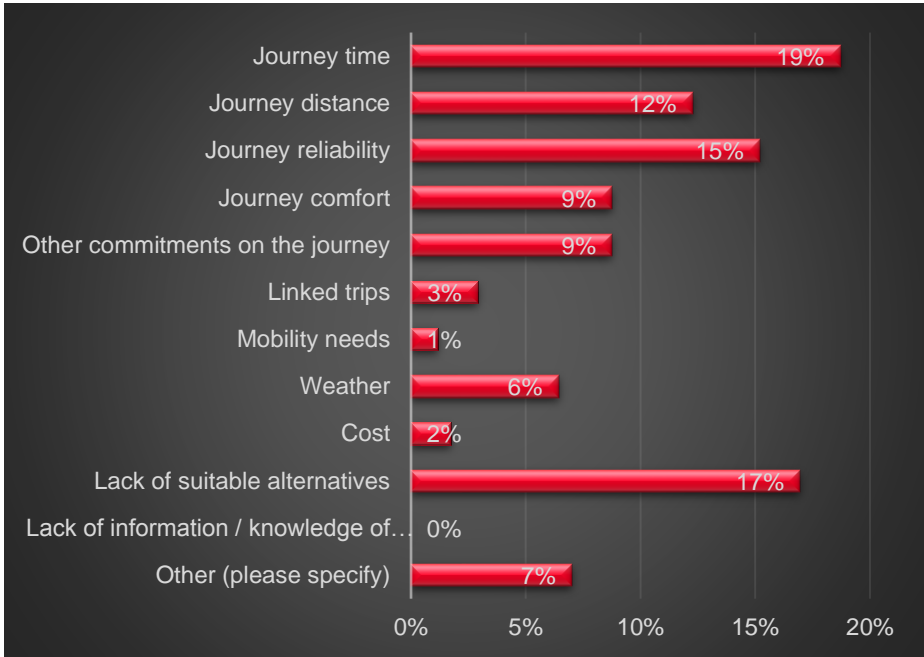
The top responses regarding measures to encourage respondents to travel to the station in a sustainable way were more frequent services, additional route options and earlier/later services, as shown in Figure 13. Feedback from the survey staff suggests that, particularly in the early morning, a lack of suitable public transport provision between outlying towns and villages and the rail station is a key motivator behind using the car to travel to the station.

Figure 13 – Motives for Sustainable Travel to the Station
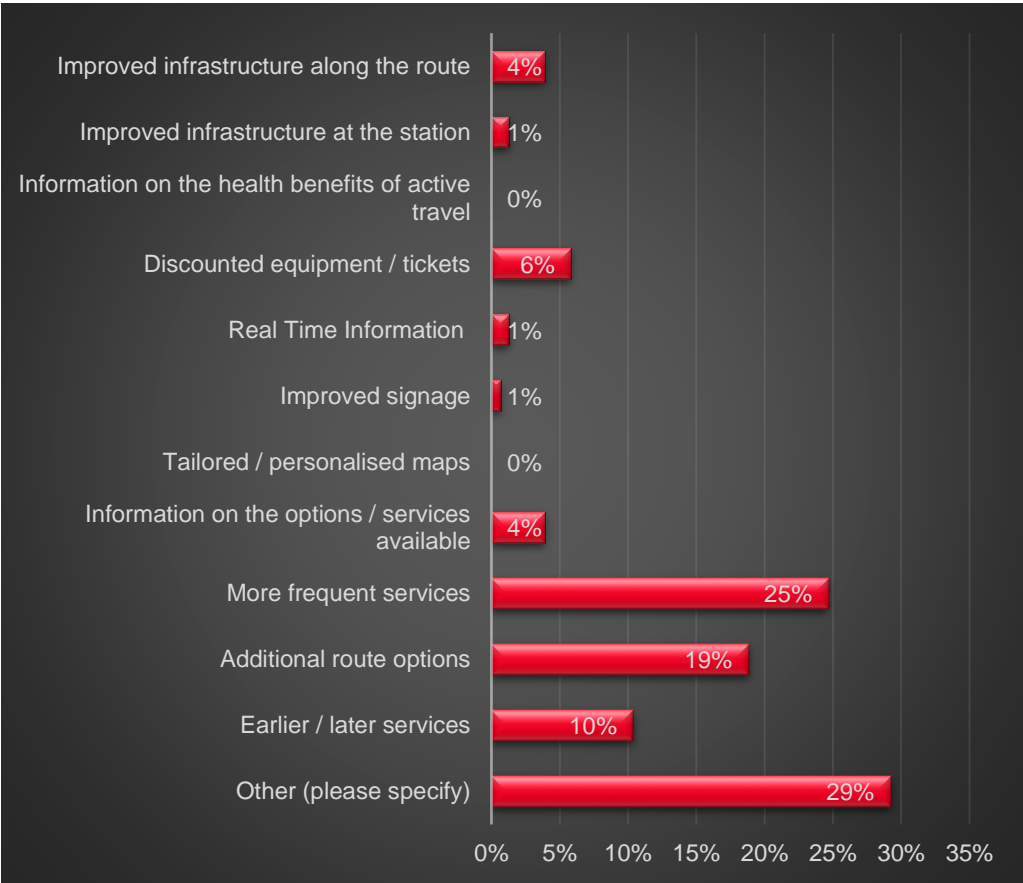
Analysis of the 29% of responses received for 'other' shows that lower public transport ticket costs, more direct bus services, quicker bus services and the availability of changing rooms for cyclists are also key motivating factors.

Stakeholder Interviews

A programme of stakeholder interviews was carried out, based on the results of a stakeholder mapping and identification exercise. The interviews were carried out in person and via telephone, and a topic guide was developed to guide the discussion. Stakeholders were grouped into overarching stakeholders that may have an interest in more than one station; for example, Sustrans and stakeholders with a specific interest in Stirling station such as Stirling Council.

Table 2 identifies the stakeholders that were interviewed and their role in their respective organisations.

Table 2: Stakeholder Interviews

Stakeholder Organisation	Stakeholder Name & Role	Date Interviewed
Stirling Council Transport / Development Planning	Susan McDougall (nee Darroch) - Stirling Station Gateway Lead	21 December 2016
Stirling Council Public Transport Unit	Derek Parry – Public Transport Coordination Team Leader	10 January 2017
Systra (Consultants undertaking a strategic review of Stirling Station Cycle Hub)	Lynda Haughney – Senior Consultant	16 January 2017
Stirling Council Communities	Lynne McKinley - Communities Team Leader	24 January 2017
Tayside & Central Scotland Transport Partnership (TACTRAN)	Eric Guthrie – Partnership Director	1 February 2017
First Group	Brian Peat - Commercial and Business Manager	3 February 2017
Sustrans Scotland	Katherine Soane - Public Transport Integration	13 February 2017
Forth Valley College	Pauline Donaldson – Facilities Management Coordinator	14 February 2017
Stirling Cycle Hub	Graham McQueen - Development Manager	16 February 2017
Stirling Area Access Panel	Robert Dick – Representative	22 February 2017
Living Streets	Stuart Hay – Scottish Director	24 February 2017
Stirling University	Tony Kopsch - Head of Facilities	27 February 2017

The key points from each interview were recorded in summary into an online stakeholder database and in full in interview write-up sheets.

Additional engagement was also undertaken with other stakeholders who were not formally interviewed, but who contributed their thoughts and in some cases additional information. This included Rachel Johnston of Stirling Voluntary Enterprise, Tricia Cumming of Active Stirling, Geoff Morrison of Destination Stirling and a representative from Prudential, a major employer in the local area.

Stakeholder Workshop

A stakeholder workshop was held on 16th March 2017, at which the issues and opportunities identified to date were presented to stakeholders, followed by a discussion session to help refine the findings and start to identify possible Travel Plan measures. Table 3 lists the workshop attendees.

Table 3: Stirling Stakeholder Workshop Attendees

Stakeholder	Organisation
Des Bradley	ScotRail – Transport Integration Manager
Amy Leather	Arcadis – Project Manager
Iain Coutts	Arcadis – Stakeholder Engagement Lead
Isabella Gorska	Stirling Access Panel & Community Councillor
David Giles	Active Stirling & Scottish Association of Public Transport Member
Susan McDougall	Stirling Council – Transport Planning Officer
Phil Byrne	Thistles Shopping Centre – Centre Director Steering Group Vice Chair for new Stirling Business Improvement District City Commissioner
Brian Peat	FirstGroup – Commercial Manager
Jim Burns	FirstGroup – Depot Operations Manager
Pauline Donaldson	Forth Valley College
Murdo Murchison	Stirling Street Pastors
Niall Gardiner	TACTRAN

The feedback from the workshop was used to refine the information presented in the Station Travel Plan Interim Report and to feed into the measures development process.

Desktop Review

The following documents and sources of information were reviewed and relevant information was incorporated into the development of the Station Travel Plan.

- Policy documents:
    - Stirling City Deal Masterplan (May 2016)
    - Stirling Local Transport Strategy: City Transport Plan 2013/14-2015/16 (June 2013)
    - Stirling Draft Active Travel Plan (draft, not adopted yet).
    - Stirling Local Transport Strategy (2006)
    - Stirling's Local Transport Strategy Review (2016)
    - Stirling Local Development Plan September (2014)
    - Stirling Economic Strategy (2014)
    - TACTRAN Regional Transport Strategy 2008-2023
    - National Transport Strategy (2016)
    - Cycling Action Plan for Scotland 2017-2020
    - National Walking Strategy (2014)
- Living Streets 'Walkable Communities' Audit of Stirling (2014)
- Rail Use Survey Report (SIAS, 2016)
- Stirling Gateway Phase 2 Scottish Stations Fund Application (2016)
- Office of Rail and Road (ORR) Statistics for Stirling Station
- Stirling Visitor Survey Report (2016)

The Stirling Visitor Survey in particular provided some useful information to shape the development of the Station Travel Plan. Since 2007, LJ Research has undertaken an online survey of visitors to Stirling, to monitor the visitor experience in the city and enable an assessment of visitor trends over time. Over the years, amongst other aspects, the survey has tracked increasing engagement with Stirling Castle, improving perception of service and overall levels of satisfaction and monitored potential opportunities to develop the visitor offer.

An online survey approach was undertaken for the 2016 edition, with visitors completing surveys after their visit which enabled the collection of detailed and accurate information regarding their overall experience in Stirling. A number of findings from the 2016 survey report are relevant to the Stirling Station Travel Plan.

It was found that the vast majority of visitors planned and booked aspects of their trip in advance of coming to the city, especially visitors from outside Scotland. The most common source of information used prior to visiting was the internet, with VisitScotland and VisitStirling among the top websites used. This presents an opportunity to promote the use of Stirling rail station to visitors planning a trip to the city through these websites.

A large proportion of visitors to Stirling stated that they were staying elsewhere, particularly in Edinburgh and Glasgow, so the provision of information on train services connecting Stirling to these cities should be another focus of the promotion of Stirling Rail Station to tourists.

The survey found that 13% of visitors to Stirling arrived by train, compared to 72% arriving by car. This presents a clear opportunity to encourage a higher number of visitors to arrive in Stirling by train. Among individual feedback from visitors following their visit to Stirling was the suggestion of an inexpensive bus service between the train station and Stirling Castle, which was found to be the most common reason for people visiting the city, and clearer signage between tourist attractions and the rail station.

In summary, there are clear opportunities to promote the use of the rail station as a key part of the tourist experience of Stirling, encouraging rail as the mode of transport to reach the city over car.

Setting the Vision and Ambition

MODe, which stands for 'Mobility Oriented Development', is an approach to achieving integrated development at multi-modal transit hubs developed by Arcadis. MODe is underpinned by a tool called MODex, which facilitates an assessment of a station and the station area, helping to identify the gaps between the level of ambition for future growth and the current status, based on a series of key indicators. This then helps to identify the areas where the Station Travel Plan measures should focus.

The application of the full MODex model is suited to larger transport hubs; therefore a refined version has been used to assess the current status and future potential of Stirling station. For this assessment, four of the full set of ten indicators have been assessed and given a score as part of a proportionate assessment, based on the indicators considered to be most relevant to Stirling station and the aims and objectives of what a Station Travel Plan looks to achieve: Hub Facilities; Public Amenities; Proximity and Transit Quality. The draft MODex model for Stirling station is shown in Figure 14.

Figure 14: Draft MODex Model for Stirling Station
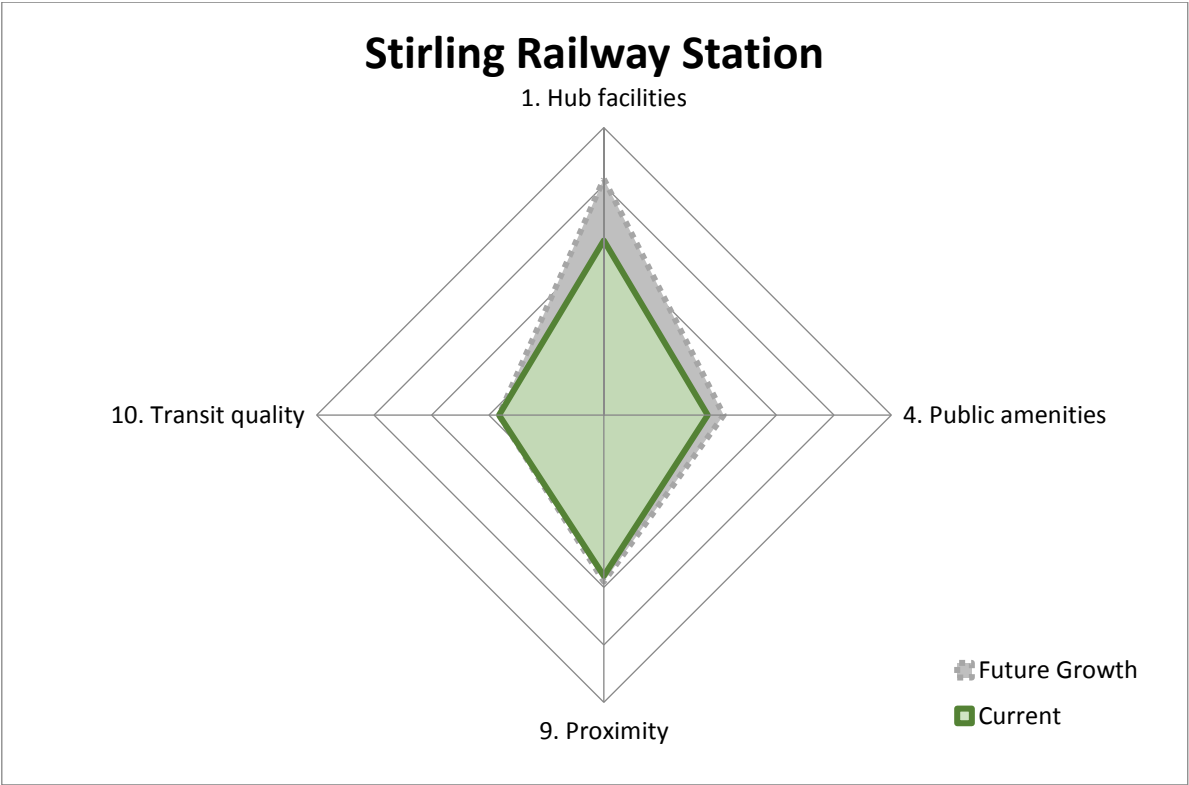
It can be seen that the station currently scores reasonably well for proximity and transit quality, but improvements could be made to public amenities to meet the desired ambition level. Despite the reasonably high current score for hub facilities, this indicator could be further improved to match the desired ambition level. This analysis has been used to shape the development of the Station Travel Plan and its constituent measures.

The hub facilities are awarded points based on the presence and quality of the facilities within or around the station, according to three levels:

- Absent: the function is missing [0]
- Insufficient: the function is present but not functioning, poorly maintained or not sufficient for the number of passengers using the station [1]
- Present: the function is present and functioning but not high quality (judgement call) [2]
- Excellent: this function is present and meets the highest standards [3]

The assessment process considers factors such as whether facilities are easily accessible on the paid and unpaid sides of the gateline and accessibility for all users e.g. the provision of step-free access. The score is then used as a basis upon which to build future aspirations.

The summary assessments for the current situation of each indicator in this exercise are shown in Tables 4 to 7.

Table 4: Hub Facilities Indicator – Current Situation

1. Hub Facilities			
Variables	**Rating**	**Points**	**Notes**
Presence of real time information	Present	2	-
Presence of ticket machines	Present	2	-
Presence of serviced ticket office	Present	2	-
Presence of information desk / journey planning	Present	2	-
Presence of disabled access / visually impaired access	Insufficient	1	Step free access to Platforms 9 and 10 not provided. Stakeholder feedback suggests that the lift is often out of order, preventing disabled users from accessing the eastern platforms.
Presence of step free access	Insufficient	1	As above.
Presence of toilets	Present	1	However, there has been feedback from some stakeholders that the location of disabled toilet facilities could be improved.
Presence of waiting room / safe waiting areas	Present	2	-
Presence of car parking	Present	2	Excess demand for car parking observed during the site audit; however, the Station Travel Plan aims to reduce the number of private vehicle trips to the station, and ensure that the car park is available for use by those who have no realistic alternative. Disabled parking provision could be improved, regardless of mode shift targets.
Presence of taxi rank	Insufficient	1	-
Presence of bicycle parking	Insufficient	1	Overcrowding of bike parking facilities observed, as well as damage to bike lockers.
Presence of wayfinding	Insufficient	1	Some directional/onward travel information is provided, but could be improved.
Presence of public art	Absent	0	-
Total		**18**	
Max		**28**	

Table 5: Public Amenities Indicator – Current Situation

4. Public Amenities (within 800m)			
Variables	**Rating**	**Points**	**Notes**
Presence of sporting amenities	Sparse	1	-
Presence of hotel amenities	Present	2	-
Presence of food and beverage outlets	Present	2	-
Presence of nightlife	Sparse	1	-
Presence of cinemas / theaters	Sparse	1	-
Presence of event stadium	Absent	0	-

Presence of cultural amenities	Sparse	1	-
Presence of government and community amenities	Present	2	-
Presence of educational amenities	Sparse	1	-
Presence of childcare and playgrounds	Sparse	1	-
Presence of healthcare	Sparse	1	-
Presence of tourist information services	Sparse	1	-
	Total	14	
	Max	36	

Table 6: Proximity – Current Situation

9. Proximity					
Item		**Time Distance**	**Unit**	**Score (Current)**	*Notes*
1. Car park	Time to walk to nearest Car Park	0 - 2	Min.	10	-
2. Airport	Time to travel to nearest Airport	1 - 2	Hour	6	-
3. Inner city	When middle of central district can be reached within a 10 minute walk, measure time walking. Otherwise use time by public transport.	0 - 5	Min.	10	-
4a Inter city	Number of **independent** towns/cities (larger than 0.5 mln inhabitants) that can be reached from the station by public transport within less than **30 minutes**.	0	#	0	-
4b Inter city	Number of **independent** towns/cities (larger than 0.5 mln inhabitants) that can be reached from the station by public transport within **30 to 60 minutes**.	2	#	2	-
				Total (average score)	**5.6**
				Maximum	**10**

Table 7 Transit Quality – Current Situation

10. Transit Quality				
A. Multimodality (nr. of transport modes & transportation lines)				
Variables	**Yes/No**	**Points**	**Score (Current)**	**Notes**
HSR	No	0	0	-
Rail	Yes	1	1	-
Metro	No	0	0	-
Tram	No	0	0	-
Bus	Yes	1	1	-

Ferry	No	0	0	-
Car (Kiss & Ride)	Yes	1	1	-
Bike (public service)	Yes	1	1	-
Pedestrian Access	Yes	1	1	-
		Total	**5**	
		Max	**9**	

B. Intermodality

Variables	Number of Transport Lines	Transfer Zone (m²)	Formula	Score
Ease of transit: efficiency/compactness of the transfers (Transfer ratio)	7	25,000	Nr. of transport lines / Transfer zone X 100.000	28
			Total	**28**
			Maximum	**160**

	Current
Score A. Multimodality	5.6
Score B. Intermodality	1.8
Score	**3.7**
Max	10

It is possible that the future proximity score could be improved with the introduction of high speed trains (HSTs) to the Glasgow to Stirling line. The journey time is current around 40 minutes, so if this can be reduced to 30 minutes or less, the score for 4a Inter-city would be improved. As the journey time improvements due to the HSTs are not yet known, this has not been accounted for in the Future Growth scenario.

Further indicators which do not form part of MODex but which use station data can also be used to compare transit hub facilities for current and aspirational scenarios at the station, as shown in Table 8. The data for Stirling can be compared with the other stations included in Abellio ScotRail's Station Travel Planning Programme as they are taken forward, with reference made to the function, location and level of patronage of each station and analysis of the appropriateness of the level of provision.

Table 8: Facilities Provision Context; Stirling Station Area in Current Situation

Entry/Exit Passengers: 2,441,644*	
Interchange Passengers: 317,403	
Total Passengers: 2,759,047	
Spaces	**% Spaces / 1,000 Passengers**
Cycle Spaces: 88	3.19%
Car Spaces: 276	10.00%
Taxi Spaces: 8	0.29%

Drop-Off Spaces: 3	0.11%
Accessible Parking Spaces: 10	0.36%

*Based on 2015/16 ORR Station Data

The next section sets out the key issues and opportunities that have been identified for the Station Travel Plan.

Key Issues and Opportunities

The key issues and opportunities we have identified through the research methods detailed above, were collated into a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis for the station and interchange facilities, and for the last mile and key routes to and from the station.

The SWOT analysis is shown in Tables 9 and 10.

Research Summary

The most pressing key issues that the Station Travel Plan could help to address, as identified through the research we have undertaken, are as follows:

- The number of cycle parking spaces provided at the station is not sufficient to cater to observed existing demand, or likely future demand;

- Insufficient bus/rail integration, with a lack of clear signage between the two stations, inadequate service information and issues with effective promotion of dedicated summer visitor bus services that link with rail services;

- A lack of direct station access on the east side of the station, facing Forthside, which contributes to short distance car trips between Forthside and the station car parks on the west side;

- A lack of dedicated, safe cycle paths on key routes between the rail station and key trip attractors; and

- Demand for car parking at the rail station is observed to exceed capacity, which will become even more significant with the forecast reduction in on-site car parking spaces as part of the Stirling Station Gateway project.

The key opportunities for the Station Travel Plan are:

- To specify the quality and type of cycle parking provision that will be installed as part of the Stirling Station Gateway project, based on the evidence collected in the passenger travel surveys, stakeholder engagement and desktop research on local demographics;

- To better promote walking and cycling as realistic modes for access to and from the station for journeys under two kilometres (walking) and journeys under five kilometres (cycling), linking in to work already carried out by the Cycle Hub and promoting existing facilities e.g. Bike & Go cycle hire;

- Supporting the evidence base for the provision of a second direct access point on the east side of the station as the Forthside development gathers pace;

- Improving bus/rail integration for longer distance onward journeys, through enhanced information provision and signage – timetable integration has been considered; however, this is very difficult to achieve given that timetables undergo changes throughout the year;

- To support the evidence base for improving key cycle routes between the station and key trip attractors;

- Consolidating and better promoting existing journey planning tools for journeys in and around Stirling, particularly those used by visitors and infrequent travellers;

- Linking in to and adding value to travel planning work undertaken by major trip attractors in Stirling, including Stirling Council and Stirling University; and

- Broadening the focus of Station Travel Plan activity to include other nearby stations such as Bridge of Allan, with ScotRail, Community Rail Partnerships and other stakeholders working together to achieve common goals.

Many of the top opportunities can be linked to the findings of the passenger travel survey undertaken by Stirling Council in October 2016, which identified that the greatest proportion of respondents' journeys (55%) originated in Stirling, which demonstrates a key opportunity to induce shift from car travel to more sustainable modes.

The following quick wins have been identified:

- Provision of Real Time Information (RTI) at the rail station (for buses) and at the bus station (for rail services);

- Improved promotion of Bike & Go cycle hire facilities at the rail station and other key trip attractors such as Stirling University, and/or rationalisation of cycle hire facilities at the station, given the relative popularity of the Next Bike hire facility and the cycle hire facilities provided by the Cycle Hub;

- A promotional campaign for walking and cycling, with a focus on trips to and from the rail station;

- Promoting and/or consolidating existing journey planning tools for travel in and around Stirling;

- Development of an online and printed travel map for Stirling, with a focus on walking, cycling and public transport;

- Improved pedestrian signage and wayfinding between the rail station and the bus station, city centre and tourist attractions;

- Identification of opportunities to work together with Stirling University to promote station usage and bus/cycle links between the rail station and the University; and

- A combined effort to co-ordinate ScotRail's proposed Rail Pastors scheme with the existing Street Pastors scheme that operates in Stirling, to offer support and reassurance to vulnerable passengers on trains, at the station, and during the last mile of their journey.

The points raised through the research and SWOT analysis were the key drivers behind developing the Action Plan for Stirling station, which is presented in the next chapter.

Table 9 - Station and Interchange Facilities

Strengths

- Large station concourse (1)
- Dedicated station facilities and travel information
- Good signage within the station as noted during the audit (2)
- Cycle Hub provides useful route information and mapping, as well as cycle hire facilities and outreach work with major employers
- Cycle parking is located on both east and west sides of the station (3)
- 20 secure cycle lockers available (3)
- Bike & Go and 'NextBike' cycle hire facilities located at the station and also at Stirling University – usage has increased significantly since implementation

Weaknesses

- It was observed during the audit that the number of cycle parking spaces is insufficient; people park elsewhere as all spaces were observed to be occupied and overcrowded (1)
- No cycle storage facilities in close proximity to the bus station
- No step-free access to platforms 9 and 10 (2)
- Poor visibility of Bike & Go cycle hire, a lack of information on how it works and relatively poor promotion, leading to low uptake
- Lack of directional signage around the station at the station forecourt (people have been observed walking down the A9 from behind the bus station and vice versa)
- Lack of signage towards cycle parking and bus station, and no Real Time Information available
- Drop-off zone (for 3 vehicles) appeared to be insufficient to cater for demand at time of audit
- Car parking facilities fully used during audit, with evidence of excess demand
- The Stirling Gateway Project does not yet include improvements to the bus station
- The station forecourt is vehicle dominated which could cause safety issues for pedestrians
- The forecourt area can be congested with vehicles, which again could cause safety issues for both motorists and pedestrians
- The footbridge over the station is considered to be unattractive to some users, due to potential vertigo induced by the unobstructed views downwards from the ends of the bridge (3)
- The last bus departure in the evening for some services is at 17:40 and a common theme among surveyed passengers who had chosen to drive to the station was the lack of early morning services, particularly from rural areas, being the main reason for their mode choice
- The bus station is not an optimal design, but any changes would require substantial modelling/land take. Improved bus/rail integration is needed.
- Real Time Information screens at the bus station are reported to be often out of service, and only used for buses operated by FirstGroup

Opportunities

- Forthside development (a 5 minute walk from the rail station) is in progress (hotel, conference centre, offices and residential flats), which will significantly increase footfall in the area to the east of the station, and through the station for access to the wider city centre
- 'Rail Revolution' – enhancements to service frequency and capacity to and from Stirling from 2018, improving the passenger experience
- Passenger survey identified the fact that the greatest proportion of respondents' journeys (55%) originated in Stirling, which demonstrates a key opportunity to induce mode shift from car to more sustainable modes
- As the route between the railway station and the bus station is reasonably long, potentially the walkway could be covered (1)
- Opportunities to integrate dynamic bus timetables in the station (Real Time Information) – and have a second screen in the station concourse. Similarly, train departure information screens could be provided at the bus station
- A potential second station exit at the east side (near platform 10) is mentioned as a potential improvement of pedestrian access from the east in interviews. This could also divide the large number of drop-offs split into two areas, and therefore reduce congestion on the west side
- Potential station access from the pedestrian bridge would also create a direct access from the east side (2)
- As the area is also a tourist hotspot; dedicated summer-only bus services/tours could be considered from the station, which could increase patronage in the off-peak hours, without placing additional pressure on car parking
- Two Park & Ride facilities have recently opened in Stirling. Further research could be carried out to integrate these facilities with the rail station (RTI on buses to the station and train departure times).
- At present, only 4% of Stirling Campus users use the train.
- Improved signage throughout the station would improve the experience for users with hearing difficulties and for access to toilet facilities
- Re-opening of rear gate to Platform 9 could prevent people in Forthside development from driving to the western entrance

Threats

- By reducing accessibility by car, the station could potentially lose customers who then decide to drive to their destination, instead of using the train; a balance is needed
- Similarly, the provision of extra car parking should not be seen as a solution to current over-occupancy of car parks
- Bus services to rural areas have decreased in the last few years, as the services were not commercially viable. This threatens the potential to promote bus as an alternative to the car for longer distance travel to the rail station.
- The A9 (tunnel) next to the station causes issues of noise and air pollution, but is a key north/south vehicle link.

Table 10 - The Last Mile and Key Routes to and from the Station

Strengths

- All areas of Stirling are located within 2.5 miles of the rail station, i.e. cycling distance. The passenger travel survey in October 2016 also showed potential for mode shift for short journeys.
- Centre is pedestrianised, and the Census (2011) shows a 19% pedestrian mode split in Stirling – an existing core of active travellers
- Stirling Castle is located within a mile of the station and Stirling is perceived as a key tourist city in Scotland. The station could play an important role in tourism as a gateway to tourist attractions (1).
- Strong rail links to core cities: Glasgow can be reached within a 30-40 minute direct train journey and Edinburgh can be reached within a 50-60 minute direct train journey.
- Thistles Shopping Centre located within 200 metres of the rail station – a key trip attractor
- Connections with local buses and National Express services (2) via the local bus station
- Taxi rank directly adjacent to the rail station (3)

Weaknesses

- No dedicated cycle infrastructure observed around the station and no pedestrian access from the south (from Craigs roundabout). Lack of lit cycle routes to/from the station was a common complaint among surveyed passengers.
- Car congestion levels within Stirling are rising, leading to issues of air and noise pollution and reducing the attractiveness for pedestrians and cyclists
- Female students (Stirling University) often report that they do not feel safe walking and cycling in the dark. Improving lighting would be huge improvement
- Bus services to Stirling University sometimes become crowded or too full to pick up more passengers during peak, leading to students and/or staff missing lectures and meetings
- Quality of cycle paths between the rail station and Stirling University – improvement is needed
- Car parking at Stirling University is currently free, on a first come first serve basis – reducing motivations for sustainable travel
- Number of inhabitants in Stirling and surrounding rural area does not justify high frequency bus services to link to rail services
- Most one-way streets in the centre do not have an allowance for cyclists to use them as a contraflow – as a result there is no direct route from the station to the west/north west side located next to the city centre (1)
- Only one footway (or cycle track) along the B8052 to the north towards Stirling University, and only short sections of cycle lanes along the A9 further north

Opportunities

- Proposal for a City Park to the west of Stirling rail station (less than 1 mile from station) that would attract more than 250.000 visitors per year
- Stirling has the highest level of active travel in Scotland, although 2011 Census data shows 1.2% cycling mode split and 19% walking mode split
- Scheduled rail station forecourt improvements - 'Stirling Station Gateway Phase 2' (1)
- Proposed new infrastructure projects allow space for the development of active travel networks along the river (2)
- Stirling proposes Controlled Parking Zone (CPZ) extensions and Travel Planning
- Stirling is estimated to grow and develop significantly, with approximately 7,500 new houses planned
- Opportunity to promote use of both Stirling and Bridge of Allan stations for travel to and from Stirling University. Currently, the University website suggests passengers alight at Stirling to continue their journey to the University by bus or taxi, and at Bridge of Allan to continue on foot / by bike. Stirling station has a higher frequency of direct rail services to/from Glasgow (4tph in the peak), whereas Bridge of Allan has only one direct service per hour, as the other two services require a change in Stirling. Cycling between Stirling station and the University can be promoted (a 3 mile compared to a 2 mile journey from Bridge of Allan) and the Station Travel Plan for Stirling can be broadened to include Bridge of Allan station in future through joint working with the Community Rail Partnership.
- Dedicated (lower cost) tickets for students traveling by bus/train to Stirling University
- Sustrans' Community Links Plus Scheme could fund 50% of measures in the area (but not part of the station forecourt, or within the franchise agreement). Other funding could be available via Scottish Stations Fund.
- Integrated ticketing (such as PlusBus) could help encourage seamless and convenient multi-modal public transport travel in Stirling
- Tie in with Stirling University Travel Survey, to be undertaken in March/April 2017, to explore common issues and opportunities
- Opportunity for ScotRail's new rail pastor scheme, which provides assistance to people on trains and in stations who may be vulnerable or unable to get home and/or contact friends and family to link into a street pastor scheme to assist with the 'last mile' of passenger's journeys

Threats

- It is estimated that the growth of Stirling could increase motorised traffic by 28% (in 20 years). Even a 10% reduction in car trips alone will not prevent severe congestion by 2037
- It is understood that no other public transport improvement schemes are currently planned in the local area
- Limits to station access will inhibit growth at the rail station and threaten the achievement of ScotRail objectives around patronage growth

Action Plan

Overview

The Action Plan has been developed on the basis of the key issues, opportunities and emerging themes identified during the evidence collection and research phase. It covers the current ScotRail franchise period, which runs until March 2022.

The full Action Plan is provided in Appendix D, and a summary version is provided in Table 13 overleaf. For each measure, the Action Plan identifies the type of intervention (behavioural, operational or physical), the objectives it supports, the lead organisations with responsibility for delivery, the cost level, timeframe and predicted impact.

Funding for a number of these measures could come from, where applicable, developer contributions through Section 75 agreements, Station Improvement Fund, Network Rail funding programmes such as Access for All, local Council funding as part of active travel strategy, community volunteer work and through Sustrans Community Links Plus funding and other grant applications.

Glossary of Key Terms

Table 11 provides a glossary of key terms used in the Action Plan.

Table 11: Glossary of Key Terms

Term	Description
Behavioural (Type)	A type of measure focused upon changing perceptions and attitudes towards travel choices through communication streams.
Operational (Type)	A type of measure to help with the effective co-ordination and management of travel services, timetables and working procedures.
Physical (Type)	A type of measure focused on tangible provision requiring installation and maintenance.
Operational Efficiency (Heading)	How the proposed measures can help to improve a system's dynamics and ease of use.
Improved On Site Access (Heading)	How the proposed measure can help improve conditions for moving within the station area.
Improved Local Access (Heading)	How the proposed measure can support better connections from local streets to the station.
Links with Local Plans/Strategies (Heading)	How the proposed measure can adhere to current local planning and transport policy.
Modal Shift (Heading)	How the proposed measure can lead to and uplift in sustainable travel to/from the station.
Safety (Heading)	How the proposed measure can contribute to increasing perceptions of safety.
Increase Patronage (Heading)	How the proposed measure can contribute to a rise in the number of people using rail annually.

Cost (Heading)	Predicted level of cost of intervention; L – Low; M – Medium; H – High.
Timescale (Heading)	Indicative period for implementing a measure; S – Short Term (within a year); M – Medium Term (1 – 3 years); L – Long Term (3 to 5 years and the end of the plan period).
Predicted Impact (Heading)	The extent to which the measure will meet objective; H – High; M – Medium; L – Low.

Monitoring & Management

It is essential that the Station Travel Plan is implemented effectively and continually managed and monitored to ensure it maintains its effectiveness and achieves the objectives set. One of the key challenges with any Travel Plan is to embed legacy into the process, to ensure that the Travel Plan continues to remain relevant and effective over the longer term.

To that effect, it is proposed that a Stirling Station Travel Plan Management Group (TPMG), comprised of representatives from the various stakeholders consulted during the development phase, is set up. Within the TPMG's remit should be the implementation, development and monitoring of the Travel Plan. It is suggested that the TPMG includes representatives from ScotRail and Stirling Council, as well as from other key stakeholders such as Sustrans, the Cycle Hub, the University of Stirling, Destination Stirling and local community groups such as Stirling Area Access Panel.

Local community groups in particular have a key role to play in ensuring that the Station Travel Plan remains current and responsive to the needs of the local community, helping to lobby for funding and undertaking future audit work in partnership with organisations such as Living Streets. It is important that local communities help to develop the case for improvements, using their local knowledge to highlight the issues and to identify innovative community-based solutions where appropriate.

The TPMG should actively identify and capture opportunities to align the Station Travel Plan with wider travel planning activity. For example, holding joint initiatives, campaigns and events with local public and private sector partners. Such coordinated working will not only help each partner to achieve their own objectives, but also to achieve wider transport, economic and social objectives in Stirling, to support sustainable development.

Table 12 illustrates the main stakeholders or 'owners' of the Stirling Station Travel Plan, who have responsibilities for its continued development, implementation and management. It shows the level of involvement and responsibility held by each owner, based on the actions set out in the Action Plan.

Table 12: Station Travel Plan 'Owners'

High	ScotRail, Stirling Council, Stirling Cycle Hub
Medium	FirstGroup, Active Stirling, Stirling University, Network Rail, Stirling Area Access Panel, Sustrans, Living Streets, other community groups and major employers
Low	Stirling Street Pastors, Destination Stirling, VisitScotland

The progress of each measure, as identified in the Action Plan, should be monitored and assessed against predicted timescales, costs, key measurable outputs and impacts. Where appropriate,

measures should be refined and amended in line with new sources of information and funding, and also to reflect the development of the Stirling Gateway and area surrounding the rail station, which will change the patterns of travel behaviour in the local area.

Effective monitoring and management of the Stirling Station Travel Plan will help achieve a legacy arising from the implementation of the proposed measures, and set a precedent for the development and implementation of similar Travel Plan schemes.

Table 13: Action Plan Summary

No.	Name	Detailed Intervention	Intervention Type			Supports							Lead Stakeholders	Cost	Key Measurable Outputs	Timescale	Predicted Impact
			Behavioural	Operational	Physical	Operational efficiency	Improved on site access	Improved local access	Links with local plan/strategy	Modal shift	Safety	Increased patronage					
1	Strategic Comms	Strategic communications between all travel plan stakeholders and development of strong partnerships.	✓	✓	✓	✓			✓				All Station Travel Plan Stakeholders	L	Effective partnership working; alignment of projects to deliver successful outcomes	L	H
2	Real Time Information	Provision of Real Time Information at the rail station for bus services at Stirling bus station and vice versa.		✓	✓	✓		✓		✓			ScotRail/First Group/Stirling Council	M	Passenger travel survey feedback - satisfaction	M	M
3	Bike & Go/Cycle Hire Promotion	Increase visibility and promotion of Bike & Go and other cycle hire facilities at the station, and strengthen links with major employers to promote further, including events and campaigns.	✓		✓			✓	✓	✓			ScotRail/Cycle Hub/Active Stirling	L	Uplift in use of Bike & Go cycle hire facility and Cycle Hub services	S	M
4	Walking and Cycling Promotion	Promotional campaign to highlight walking and cycling to/from Stirling station as a viable option for users who may currently drive, or not use the station at all. Co-ordinate with other initiatives such as 'Walkable Stirling' and promote via links with major employers and visitor organisations.	✓	✓				✓	✓	✓		✓	Stirling Council/Active Stirling	L	Increase in percentage mode share to/from station by walking and cycling, survey of targeted employers and groups to determine influence on any mode changes	S	M
5	Journey Planning Tools	Undertake a review of the existing multi-modal journey planning tools for travel in and around Stirling, such as GoToo and Traveline, and work with providers to improve, promote and rationalise services. Involve University students in the review and update.	✓		✓	✓		✓	✓	✓		✓	Stirling Council/ Stirling University	L	Significant increase in use of journey planning tools, directly influenced by STP	S	L
6	Improved Pedestrian Signage	Improved pedestrian signage between the rail station and the bus station, city centre and tourist attractions, as well as at the rail station itself e.g. directional floor vinyls at the exit.		✓	✓	✓		✓		✓		✓	ScotRail/ Stirling Council/ Stirling University	M	Passenger/visitor survey responses – greater bus/rail integration for onward journeys	M	M
7	Travel Plan Co-Ordination with Stirling University	Engage and work with Stirling University to establish a link between the University and Station Travel Plans and develop coordinated measures to promote rail. Engagement of students in the process where possible.	✓	✓				✓	✓	✓	✓	✓	ScotRail/ Stirling University	M	Increased use of Stirling rail station by university students and staff	S	M
8	Rail & Street Pastors	A combined effort to co-ordinate ScotRail's proposed Rail Pastor scheme with the existing Street Pastors scheme that operates in Stirling, to offer support and reassurance to vulnerable passengers on trains, at the station and during the last mile of their journey.	✓	✓			✓	✓			✓		ScotRail/ Street Pastors	L	Feedback through ScotRail passenger satisfaction survey, particularly on questions of safety	M	H
9	Additional Eastern Station Access	Explore feasibility of providing additional station access/ticket barrier at the east side to accommodate existing and future demand from the east e.g. Forthside.	✓	✓	✓	✓	✓	✓				✓	ScotRail/ Network Rail	H	Fewer instances of Forthside residents driving to station	L	H
10	Shuttle Bus / Demand Responsive Tourist Service	Encourage community partners to explore, develop and implement innovative solutions to link the rail station and tourist attractions such as Stirling Castle and promote to visitors.	✓	✓	✓			✓				✓	Destination Stirling/Stirling Area Access Panel/Other Community Groups	H	Successful service provision; shuttle bus patronage	L	H
11	Rail Promotion to Tourists	Promotion of the station to tourists who are visiting or considering visiting Stirling, including the services provided to other local tourist destinations (Bridge of Allan, Falkirk etc).	✓	✓	✓							✓	VisitScotland/ Destination Stirling	M	Increase in rail mode share among visitors arriving in Stirling	M	M

No	Measure	Description												Lead	Priority	Success Measure		
12	Integrated Ticketing	Promotion of existing ticket integration (PlusBus) via station staff and online through a dedicated network wide campaign.	✓	✓				✓		✓		✓		ScotRail	L	Increase in use of PlusBus for journeys via Stirling	M	M
13	Extended Cycle Audit	Extended audit of routes to/from station to key destinations such as the University and the city centre, compiling the evidence base for cycle route improvements. Audit can be undertaken by community based groups.	✓	✓				✓	✓	✓				Cycle Hub/Sustrans/ Living Streets	L	Audit of routes between station and University/other key attractors, and identification of improvements	S	M
14	Improved Station Signage	Work with community groups e.g. Stirling Area Access Panel to review and improve signage within the station.		✓	✓		✓				✓			Stirling Area Access Panel/ScotRail	M	Customer satisfaction surveys; feedback from community groups	M	L
15	Improved Station Cycle Parking	Identify and allocate space within the post Stirling Station Gateway Phase 2 layout for the provision of 300 cycle parking spaces, in the form of a lockable covered cage, ideally situated adjacent to the Cycle Hub at the station entrance.		✓	✓			✓	✓	✓		✓		ScotRail Cycling Officer	M	Finalised design and successful installation. Observed demand for cycle parking after installation.	M	H
16	Station Friends	Develop ScotRail's Station Friends Scheme by engaging with potential businesses identified through the site audit who are willing to offer refuge to passengers in need and confirming and promoting the offer to passengers.	✓	✓							✓			ScotRail/Local businesses	L	Confirmation of Station Friends; uptake of the scheme	S	M
17	Full Station Step Free Access	Work with community groups to explore the options for the provision of step free access to Platform 9 & 10.		✓	✓		✓				✓			ScotRail/ Network Rail/Stirling Area Access Panel	H	Provision of step free access	L	H
18	Toilets Signage	Improved directional signage for the toilets in the waiting room on Platform 4.			✓		✓							ScotRail	L	Passenger satisfaction survey	S	M
19	Left Luggage Facility	Provide left luggage lockers within the rail station to replace the former facility at the bus station, to improve the visitor experience.	✓		✓	✓		✓		✓		✓		ScotRail/ Destination Stirling	M	Annual Stirling Visitor Survey feedback	M	H
20	Promotion of Summer Bus Services	Improved promotion and accommodation of the First Group/Destination Stirling Summer Bus service; either allowing the bus onto the station forecourt, or providing signage or floor vinyls at the rail station exit.	✓	✓	✓	✓		✓		✓		✓		ScotRail/First Group/ Destination Stirling	L	Annual Stirling Visitor Survey feedback	S	M
21	Station Centric Sustainable Travel Map	Production of a sustainable travel map focused on the station, available in printed and online formats and in large copy at the station entrance/exit.	✓		✓		✓	✓	✓	✓		✓		ScotRail/ Sustrans/ TACTRAN/ Cycle Hub	M	Better awareness among visitors regarding sustainable transport links to/from the station; increased uptake of sustainable modes	M	H
22	Station / Last Mile Re-Audit & Station Travel Plan Update	Following the completion of the Stirling Station Gateway Phase 2, empower the local community and stakeholders to undertake a re-audit of the station and last mile routes to update the Station Travel Plan measures to reflect the new situation.			✓		✓	✓		✓		✓		Community Groups e.g. Stirling Area Access Panel, Destination Stirling, supported by Sustrans & Living Streets and with input from Stirling Council	L	Updated Station Audit following completion of Stirling Station Gateway Phase 2	L	M
23	Wider Station Travel Plan Activity	Broaden the focus of the Station Travel Plan to include nearby stations such as Bridge of Allan, working with the Community Rail Partnership to identify and develop solutions to promote the use of rail and sustainable travel to and from the station.			✓		✓	✓	✓	✓	✓	✓		ScotRail / Community Rail Partnership / Other Key Stakeholders	L	Broadened focus of the Stirling Station Travel Plan and/or other complementary Station Travel Plans and initiatives	L	M/H

Table 14 sets out the ten main indicators against which the implementation of Stirling Station Travel Plan will be monitored. These indicators are standard across each of the eight Station Travel Plans being prepared during the current phase of ScotRail's Station Travel Plan programme, and have been developed to capture each of the main aims and objectives of the programme.

It is recognised that the focus of each Station Travel Plan will differ; for example, for some stations the main issues and opportunities identified may focus on the station itself and associated facilities, whereas for others the focus may be on the last mile, and supporting links to and from the station. Each Station Travel Plan will contribute to all ten indicators in some way; and a rating system has been developed to indicate where the focus areas lie. The rating system is as follows:

- Green – highest priority area

- Amber – medium priority area

- Grey – low priority area (however, the Station Travel Plan will still support the indicator to some extent)

The rating system has been applied based on the evidence collected on the key issues and opportunities and the actions set out in the Action Plan.

Table 14: Stirling Station Travel Plan Indicators

1.	Mode Shift	
2.	Peak Spreading / Re-Timing Journeys	
3.	Overall Passenger Experience	
4.	Interchange Experience	
5.	Improving Patronage	
6.	Local Station Usage	
7.	The Last Mile	
8.	Active Travel	
9.	Economic Growth & Development	
10.	Access for All	

List of Appendices

Appendix A: Site & Area Audit Write-Up

Appendix B: Passenger & Public Travel Survey Results

Appendix C: MODex Analysis

Appendix D: Full Action Plan