TACTRAN Park & Ride strategy

Best practice review

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1. Introduction

1.1 The Park & Ride strategy

1.1.1 In accordance with the Transport (Scotland) Act 2005, TACTRAN have prepared a Regional Transport Strategy (RTS) setting out a vision and objectives for improving the region's transport infrastructure, services and facilities over the 15 years to 2021.

1.1.2 A number of early initiatives emerging from the RTS involve developing sub-strategies and regional frameworks, which set out in more detail the policy and delivery framework for key elements of the RTS.

1.1.3 Specifically, the TACTRAN RTS has aspirations to:

- Assess the potential for enhanced Park & Ride / Park & Choose network in the Perth, Stirling and Dundee areas, including Inter-Urban Park & Ride allowing for longer distance travel on bus and coach.
- Liaise with Transport Scotland, Network Rail and First ScotRail to support a review of station car parking provision aimed at encouraging modal shift in favour of rail.
- Support the development of a new Park and Ride station at Bannockburn.
- Ensure that the specific needs of disabled and other disadvantaged groups in accessing and using rail stations are addressed.

1.1.4 In addition to the RTS, several major existing studies have highlighted the potential role of Park & Ride in transport policy across the TACTRAN area, as follows.

- The Local Transport Strategy for Dundee City states that "Park & Ride facilities at the edge of the urban area will be investigated as an opportunity to encourage greener travel patterns for people living outwith Dundee's boundaries."
- The Central Dundee Car Parking Strategy Measure SPSP6 states a desire to "bring forward proposals for the provision of Park & Ride facilities.
- The City Transport Strategy for Stirling includes Park & Ride at Springkerse and Kildean / Castle Business Park in its base strategy elements. Both of these sites have been progressed. The "Do Something" strategy elements include a Park & Ride / express bus interchange facility at Pirnhall / Corbiewood and rail-based Park & Ride at a new station at Bannockburn.
- Stirling Council's Parking Strategy views Park & Ride for the City of Stirling as a key element in its strategy.
- Perth have no current Transport or Parking Strategy but have three Park & Ride sites in operation already and are enthusiastic about the provision of future sites.

1.2 Best practice review

1.2.1 The purpose of this report is to summarise Best Practice in Park and Ride, based on experience throughout the UK.

1.2.2 There have been the most innovations in Park and Ride across the UK's historic town and at major airports. For historic towns, Park and Ride is one of the few ways of encouraging town centre vitality with minimal environmental impact. For airports, customer service is given the highest priority, and the operating

framework allows new innovations to be trialled. While the Best Practice review pays particular attention to these locations it also reviews successful sites in other cities and sites across Scotland.

1.2.3 The report also reviews unsuccessful sites and the reasons for their failure, so that the lessons learned can fully understood and applied to the TACTRAN area.

1.3 Structure of this document

1.3.1 Best Practice in Local Bus-Based Park & Ride is summarised in Chapter 2; similarly, Best Practice in Strategic Bus-Based Park & Ride is outlined in Chapter 3. Rail Based Park & Ride and Park & Choose are discussed in Chapters 4 and 5, respectively. Funding possibilities are considered in Chapter 6, and potential reasons for the failure of Park & Ride sites are summarised in Chapter 7. Finally, an overall summary is given in Chapter 8. The following appendices are also provided:

- Appendix A: Examples of best practice in Rail and Bus based Park & Ride
- Appendix B: Examples of Best Practice in the TACTRAN area
- Appendix C: Blank pro formas for use with any future Park & Ride scheme

2.   Best practice in bus-based Park & Ride

2.1   Successful Park & Ride

2.1.1   For sites to have the greatest certainty of a successful operational outcome both in usage and revenue terms there is great merit in applying the lessons learned from other Park & Ride sites. The majority of existing sites, both in Scotland and countrywide are bus-based Park & Ride sites. It is in relation to these sites that the greatest body of experience has been amassed and there is the greatest scope for drawing together a set of generalised requirements for the success of bus-based Park & Ride schemes.

2.1.2   This section of the report presents advice on:

- Available research and government guidelines (2.2);
- The role of Park & Ride within a parking strategy (2.3);
- Estimating demand (2.4);
- Site location (2.5);
- Signing (2.6);
- Site size (2.7);
- Charging (2.8);
- Bus services and priority measures (2.9);
- Branding and marketing (2.10);
- Site layout (2.11);
- Construction and surfacing (2.12);
- Security and lighting (2.13);
- Passenger facilities (2.14);
- Landscaping (2.15);
- Maintenance (2.16);
- Monitoring and evaluation (2.17), and
- Contract with the bus operator (2.18).

2.2   Available research and government guidelines

2.2.1   Park & Ride in the UK was first introduced in the 1970's. Historic towns were amongst the first to introduce out-of-town parking provision, stemming from a serious shortage of central area land and escalating land values.

2.2.2   By comparison, the development of Park & Ride in Scotland is comparatively recent. Its use has only begun to become widespread in the last five years or so and detailed studies of site usage are limited[1]. By contrast the oldest Park & Ride sites in the UK as a whole are now more than 30 years old and many have been studied extensively.

2.2.3   Park & Ride schemes may be attractive for a number of reasons and may be intended to help with the achievement of a number of objectives. Those objectives most readily contributed to are those relating to the economic vitality and overall accessibility of the town or city centre. In most cases it is also possible to demonstrate a level of contribution to objectives addressing local environmental issues, particularly air quality and noise problems, safety, urban area traffic reduction or reductions in local delays caused by congestion. It is generally much more difficult to demonstrate that a Park & Ride scheme is

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[1] The most frequently referred to study is titled "Park and Ride in Scotland" and is a report prepared for the Scottish Executive Central Research Unit in 1999 by TRL and SPT. This study considered eleven sites and attempted to derive some Scottish best practice, however, only four of the sites studied are still operating.

contributing to the achievement of global environmental objectives or to net traffic reduction[2].

2.2.4   Clearly, in order to have the best chance of contributing to all of the relevant objectives it is important for schemes to draw on the lessons learned through the operation of existing Park & Ride sites and to apply best practice.

2.2.5   Transport Scotland offer some excellent general advice on the implementation of Park & Ride schemes noting that:

> *"The full effects of Park and Ride proposals may not be obvious without some quite careful analysis of the full range of journey patterns in the area in question. It is possible for good facilities to attract many users who access the site by foot or bicycle, for example. Also, where the public transport link is more attractive (e.g. cheaper) than nearby alternatives, it is possible that existing public transport users will divert to the new service. Whilst these effects need not be problems, they highlight the need to define a sufficiently wide scope for appraisal if the full impact of such a proposal is to be captured. There is a further need to consider any measures at the destination (alterations to the parking regime, say) which are felt necessary to ensure the desired uptake."*

2.2.6   Both Transport Scotland and the Department for Transport recommend the guidance offered in Bus-Based Park and Ride; A Good Practice Guide (produced by the English Historic Towns Forum). This document pulls together the lessons learned from the best established schemes to provide a set of generalised guidelines which should give the planners of new sites the best chance of achieving the desired objectives. As has already been stated Park & Ride in Scotland is much younger and much less extensively studied than its better established counterparts elsewhere. An attempt has been made here to identify Scottish examples of best practice in action and to demonstrate that there is no reason lessons learned in these established schemes should not be equally applicable to new schemes in the TACTRAN region.

2.3   The role of Park & Ride within a parking strategy

2.3.1   Park & Ride can only be successful as part of an overall parking strategy. Where available, the private car will nearly always be the favoured method of travel as it provides a convenient door to door service. In order to attract motorists, Park & Ride must offer a more efficient, cheaper and / or quicker alternative.

2.3.2   Key elements of any parking strategy must include:

- a parking restraint policy;
- residents parking schemes;
- the promotion of walking and cycling, and
- bus priority measures.

2.3.3   A parking restraint policy should set town and city parking charges to favour short and medium stay use. This will increase turnover and provide for the demands of shopping, leisure and commerce. Parking charges for long stay use should be high to encourage commuters to use the Park & Ride scheme.

[2] An illustration of this is provided by Graham Parkhurst's 2000 publication "Influence of bus-based park and ride facilities on users' car traffic" (Transport Policy, Volume 7, Issue 2, April 2000, Pages 159-172) which concluded that in all the cases studied the total additional traffic generated outside the urban area was greater than that avoided within the urban area.

2.3.4   High central commuter parking charges will encourage parking on nearby residential streets. Consequently, residents parking schemes, with a high level of enforcement, are essential, adjacent to the central area, to discourage commuter parking.

2.4   Estimating demand

2.4.1   Demand estimation is a crucial step in the assessment of the potential for Park & Ride which contributes as successfully as possible towards the achievement of the agreed objectives.

2.4.2   There are a number of ways in which the demand for Park & Ride can be estimated but as a general rule an average well located and well designed site is able to attract as much as 20% of the traffic travelling into a town / city centre. As much as 30% of the traffic is attracted by the most successful large scale schemes.

2.4.3   Transport Scotland state that:

> *"It is likely that traffic modelling will be necessary if the specific local characteristics likely to affect uptake are to be properly allowed for"*

2.4.4   In the case of the TACTRAN strategy, the approach involves a combination of modelling input from both the Transport Model for Scotland (TMfS) and CB's PRIDE model; a specialist package for assessing the potential patronage of a proposed site.

2.4.5   There are a number of factors which might have an adverse impact on the demand for Park & Ride:

- There might be an excess in the supply of parking in the town / city centre
- City centre parking might be inexpensive compared to the cost of Park & Ride use
- There might be a high level of private non-residential (PNR) parking in the town / city centre
- Competing town / city centres might be more attractive as destinations
- Park and Ride buses may not be able to offer competitive journey times

2.4.6   An assessment of the current level of usage of existing central parking and existing Park & Ride provision is valuable and thorough demand estimation can help to determine whether the likely overall level of demand is sufficient bearing in mind that those with a free central parking space or a high value of time are difficult to attract and that it is the remaining proportion of the market who are of interest.

2.4.7   However, Transport Scotland also state that:

> *"It is important for planners to be aware of the possibility of generating new car-based trips to the Park and Ride sites, and to note the potential for generating local congestion near the site. Indeed, it is possible that poorly designed Park and Ride proposal could actually do more harm than good, which again points to the need for careful modelling and appraisal of major proposals."*

2.4.8   Again the application of best practice can minimise trip generation, local congestion and any other adverse effects resulting from the final Park & Ride strategy.

2.5   Site location

2.5.1   Site selection is an important factor in ensuring that sites operate as effectively as possible. In practice it is a compromise between competing transport, economic and environmental considerations including visual intrusion. Local authority boundaries should not be allowed to act as barriers to the selection of suitable sites. Sites should ideally be:

- well signed;
- adjacent to a major radial approach route;
- on the edge of the built up area;
- safe and easy to access;
- outside any congested area to maximise the advantages of bus priority;
- located to reduce the likelihood of abstraction from conventional bus services;
- surrounded by land which could be used for expansion;
- in keeping with surrounding land usage;
- cost effective, and
- adjacent to trip attractors if there is a desire to attract non Park & Ride traffic to the bus service.

2.5.2   Sites within existing greenbelt regions will clearly need to be treated with additional sensitivity with regard to topography, visibility and access.

2.5.3   Amongst the existing sites Broxden and Scone lie on or near to major radial approach routes. Kinross is a more strategic site and lies close to the M90. Stirling's Springkerse site is located between two major radials in a location which would not be immediately obvious. However, the pattern of access, traffic flow and congestion around Stirling has enabled this site to be successful.

2.6   Signing

2.6.1   Clear, unambiguous and consistent signposting both to and from the Park & Ride site is vital. Infrequent visitors to an area are often particularly disposed to the use of Park & Ride which prevents them from having to navigate complex city centre networks.

2.6.2   All existing sites within the TACTRAN area are well signposted and this standard should be repeated at new sites.

2.6.3   It is important that Park & Ride stops in the town / city centre are well signed with good service information, giving the Park & Ride user confidence and security in making their return trip. This is discussed in more detail below.

2.6.4   Variable message signs on the trunk and motorway network can be used to encourage Park & Ride use – a good example of this is at Ferrytoll.

2.7   Site size

2.7.1   As a general rule a site of 500 – 600 spaces is considered necessary for a cost effective, efficient and viable bus operation with 400 spaces being a minimum. Where central parking is very limited and journey times are short sites with around 250 spaces can operate successfully though bus services are unlikely to be self sufficient from Park & Ride traffic alone. Nevertheless, relatively small sites can make a useful contribution to easing traffic and environmental problems.

2.7.2   Very large sites may be problematic as access from the parked car to the bus becomes an issue. In such circumstances, multiple bus stops may be required,

with bus looping through the Park and Ride site - many airport long stay car parks operate on this principle.

2.7.3   Decisions on site size should be driven primarily by the estimated demand, however, consideration should be given at the planning stage to allow future extension of the site. As examples, Broxden is currently being extended from 250 to 406 spaces. Existing park and ride sites at Ingliston and Sheriffhall, near Edinburgh, are also being extended from 400 to 800 and 350 to 580 spaces respectively.

2.7.4   The most obvious example of the need to extend a Park & Ride site has been at Ferrytoll - which has been increased from 400 to 1050 spaces, including a multi-storey car park.

2.8   Charging

2.8.1   As V.A.T. is charged on parking fees, but not bus fares, it is generally more economic to charge for the use of the bus and to allow free parking.

2.8.2   Of the existing Scottish Park & Ride sites, only two charge for parking, Glasgow's Shields Road and Edinburgh's Newcraighall. Both sites offer Park & Choose, either by bus and rail or bus and subway.

2.8.3   In general, unless a new site is particularly attractive as overflow parking for an adjacent development (only a problem where there are adjacent developments with a lack of free parking) it is likely that it will be most appropriate to charge for travel by bus.

2.8.4   The existing sites in TACTRAN typically offer adult return bus fares for a total of £1 to £1.50[3]. The highest dedicated fares found at any of the Scottish sites are £4.50 for an adult return from Ferrytoll and £3.25 for an adult return from Ellon to Aberdeen but most are in the region of £1 or £2.

2.8.5   Single tickets are unlikely to be important in the context of Park & Ride use (though they may be of relevance to other users of the Park & Ride buses) but the sale of season tickets or other kinds of high use discounts or multi-use ticket should be considered.

2.9   Bus services and bus priority measures

2.9.1   The image of the bus service is extremely important. Frequent, reliable, modern, accessible and well maintained buses help to identify the Park & Ride system as a high quality public transport mode. Bus routes should serve central set down points well located and signed in relation to commercial and retail centres. It may also be appropriate to serve other important destinations lying on the route into the centre.

2.9.2   In general a ten minute service frequency is considered the minimum acceptable for local bus-based Park & Ride though the small sites already established in TACTRAN are operating effectively at ten to fifteen minute frequencies.

2.9.3   Fife's Ferrytoll is an example where Park & Ride services operate at a very high frequency, and via a range of routes to Edinburgh City centre.

2.9.4   Services to and from Edinburgh's Ingliston Park & Ride site stop at other key destinations, such as the RBS Headquarters at Ingliston, The Gyle Shopping

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[3] The site at Kinross primarily operates strategically and specific fares from the site are not advertised.

Centre and Edinburgh Park. Ingliston is also a good example of where existing bus services have been extended to the Park & Ride site, offering a greater choice of service, while strengthening service provision for general public transport users within the city.

2.9.5   Edinburgh's Hermiston, Scone, Falkirk West (Carmuirs) and Newcraighall Park & Ride sites all have buses running every ten minutes as do Broxden and Aberdeen's Kingswells and Bridge of Don at peak times. Edinburgh's Sheriffhall Park and Ride site and the site at Ellon operate effectively with less frequently running services.

2.9.6   Park & Ride bus services can often be provided on a commercial basis, particularly for sites of 400 spaces and over. Smaller scale operations may be able to operate commercially if the bus service serves a dual role rather than serving the Park & Ride site only. The dedicated Park & Ride to Stirling's Springkerse site also serves the nearby Morrisons Superstore. The additional patronage generated allows the service to operate on a commercial basis, which might not otherwise be feasible based on Park & Ride patronage alone.

2.9.7   Vehicle capacities can be chosen to balance expected usage with reasonable running costs and, depending on the circumstances minibuses, midi-buses, single-decker or double-decker vehicles may be appropriate.

2.9.8   The period of operation will depend on the needs of major employers, local businesses, retail groups and trading associations and would need to be established in consultation with such bodies. Typically though services operate from around 07:00 or 07:30 to 18:30 or 19:30 Monday to Saturday with extensions to evenings and Sundays as appropriate.

2.9.9   Bus priority measures are very important in increasing Park & Ride journeys' ability to compete with direct car journeys and in increasing the public perception of the Park & Ride service. Bus lanes and bus only links are the most directly visible form of bus priority but signal priority can also help to improve bus timekeeping though it cannot give bus passengers the perception that they are overtaking the general traffic.

2.9.10 The bus service from Stirling's Springkerse site runs along a bus only link on its final approach to the city centre. Similarly, a bus only link, linking the Technology Park with Ninewells Hospital, has recently opened in Dundee. It would be advantageous if new Park & Ride provision around Dundee could make use of this link.

2.9.11 Bus priority measures have played an important role in the success of the Ferrytoll Park & Ride site. Bus lanes on the A90 approach to Edinburgh, together with a queue relocation system, provide inbound journey time savings of some 15 minutes.

2.9.12 Where the new Park & Ride bus service is a substantial improvement on the existing commercial bus service there may be abstraction of custom from an existing service. While this may not affect the achievement of objectives relating directly to Park & Ride use it would affect the achievement of objectives relating to bus service provision and in general. Abstraction can be reduced by setting fares in line with existing fares and integrating the Park & Ride services into the wider bus network carefully.

2.9.13 In Edinburgh all of the Park & Ride bus services are run by the major operator, Lothian Buses which negates potential abstraction effects. The bus service serving Stirling's Springkerse site was routed to fill a gap in the existing bus network and this has helped to encourage high patronage on the route.

2.10 Branding and marketing

2.10.1 A strong brand image can assist greatly in promoting and selling Park & Ride, especially where the target market is regular motorists who often have negative perceptions of buses. To attract passengers services must be presented as being good value, efficient, punctual, clean and friendly. To retain passengers services must also meet these expectations. A distinctive logo and livery is often an important influence on the level of public awareness locally and signposting and on-site information can be very valuable to tourists and other infrequent visitors.

2.10.2 Some sections of the travelling public are more readily persuaded to use Park & Ride than others and marketing campaigns will be most effective if they target these groups. However, it must always be kept in mind that even the best of marketing campaigns will not be able to compensate for a poorly designed scheme. Users must be retained as well as attracted and will be quickly discouraged by missing links in the service provided, for example poor lighting in the car park or a shortage of signposting.

2.10.3 In order to advertise, and, in particular to launch, a new Park & Ride scheme there is a need for an effective marketing plan, ideally one designed by, or with the assistance of, marketing professionals. The plan should be aimed at the market segments that the scheme is aiming to attract, which may include commuters, tourists or those living in a particular region.

2.10.4 Methods used to promoted the scheme might include:

- press releases;
- photo opportunities;
- local radio interviews;
- advertising;
- leaflets;
- posters;
- exhibitions;
- promotional videos;
- internet promotions, via council websites, for example;
- direct contact with likely user groups like car park season ticket holders or major employers;
- special offers like free use over a specified period, and
- inclusion in general travel awareness information.

2.10.5 The precise mix of methods will depend on the target audience, cost considerations and the level of awareness of existing schemes. A truly effective marketing campaign is not cheap but if it presents a scheme from failing then it should, perhaps, be viewed as good value for money.

2.10.6 The Springkerse and Broxden sites both operate with dedicated branded Park & Ride buses raising each sites awareness.

2.10.7 The Kinross and Scone sites are served by existing services. Those at Scone operate under a special Stagecoach "Goldline" brand - although the service calls at all stops, vehicles are of extremely high quality and distinctive. At Kinross, Citylink / Megabus is a strong brand, competing effectively with long distance train services across large areas of Scotland.

2.10.8 First Bus, Stagecoach and Lothian Buses all run Park & Ride services in Scotland demonstrating that a Park & Ride brand does not have to be wholly separate from the general bus provision in order to be successful.

2.11 Site layout

2.11.1 A successful site layout must pay detailed attention to the perceived and actual safety and security of users and their vehicles. In addition there must be attention paid to all aspects of the service beginning with the signposting which users will follow in order to reach the site. There must be easy access to the site, free circulation within the site, clearly marked parking bays. Bus stops must be conveniently located and users must have easy access to them. There should be convenient links to local footpaths and cycle routes. If there is land available for extension the site should be designed with a future larger parking area in mind.

2.11.2 Ideally buses should have a separate route through the site and the site should include ample space for them to turn. Pedestrians should be able to walk about the site safely, preferably on designated walkways which take priority over traffic routes where the two intersect.

2.11.3 Disabled parking should be of the standard size with level, step free access to the bus stops. If supplied, parent and child spaces should have similar dimensions.

2.11.4 Both disabled and able bodied users will find the site easier to use if there are no excessive gradients and dropped kerbs and handrails are supplied as appropriate.

2.11.5 Kinross and Springkerse are flat sites and, though both have blacktopped surfacing, efforts have been made to break this up with areas of landscaping. The Broxden site is on the side of a hill. The site has been partially terraced which both serves to break up the surface area and allows for landscaping of the remaining steeper banks. Scone is the smallest of the existing bus based Park & Ride sites in the TACTRAN area. While only limited landscaping has been provided, this is satisfactory given the sites size.

2.11.6 If possible facilities like bottle banks should not be located within Park & Ride facilities as these will be likely to contribute to a lower overall site quality and level of public perception.

2.12 Construction and surfacing

2.12.1 Local circumstances and engineering and budgetary constraints will often influence the choice of construction materials and surfacing. Where buses will circulate there is a need for full-depth carriageway construction finished with hot rolled asphalt or charcoal coloured blocks which can resist the damage and discolouration caused by diesel oil. Elsewhere there is more scope for choice with regard to surface material and colour and it may be appropriate to consider different surfaces for vehicle circulatory routes, parking bays and walkways though the needs of disabled users for smooth, slip-resistant surfaces must be kept in mind.

2.12.2 The size of a site may well be a consideration as the larger the area being considered the greater the need to break up what would could otherwise be a very monotonous sight. However, it should be noted that great surface variation may well lead to future maintenance problems due to the need to match construction materials.

2.12.3 Notably the existing sites in the TACTRAN area have generally chosen blacktop surfacing broken up by landscape elements rather than contrasting surfaces.

2.12.4 Where pedestrian routes cross vehicle routes within the site it is advisable to apply pedestrian priority, generally through the use of some paving contrast. At

the existing Kinross site an area of yellow cross hatching covers a central walkway and at Springkerse there are red surfaced raised tables.

2.13 Security and lighting

2.13.1 In practice Park & Ride sites are generally safe places. However, the perception of security may be harder to achieve and users may also be concerned about the safety of their vehicles. High levels of site activity and a permanent staff presence are the easiest way to achieve both security and the perception of security. Staffing is expensive but the benefits are usually found to justify the costs.

2.13.2 With or without permanent security staff lighting, fencing and an appropriate layout will all help to increase both security and perceived security and CCTV should cover the whole site and be adequately monitored. Natural surveillance is a great deterrent to car crime and sites should be designed so that, where possible, those coming and going from the site and from adjacent locations have a good opportunity to spot any untoward activity.

2.13.3 Lighting must be sensitively designed in order to provide good illumination for the whole site without resulting in light pollution adversely affecting surrounding residents.

2.13.4 Good design in general can reduce the incidence of vandalism. For example the choice of building material can greatly increase the robustness of the facilities and the elimination of sheltered corners and doorways will greatly reduce the attractiveness of the site as a place to "hang about"

2.13.5 Sites may seek to gain recognition by the Park Mark (Safer Parking) scheme.

2.13.6 The existing Scone and Kinross sites tend to be lonely after dark though this did not appear to be deterring users from arriving at Kinross on foot at the time of the site audit. High levels of usage of the Citylink / Megabus interchange at Broxden tend to maintain activity levels later into the evenings than would otherwise be the case, improving security at this site. The Springkerse site is staffed and has been recognised under the Park Mark (Safer Parking) scheme.

2.14 Passenger facilities

2.14.1 Decisions on the provision of passenger facilities will depend partly on the size of the site but also on the need to provide a level of service which will act as an attraction. All sites should be provided with litter bins, travel information and shelters. Toilets (with disabled access) are provided at many sites including that at Springkerse. Seating and public telephones are also provided at many sites though the need for the latter is decreasing as mobile telephones become increasingly widespread. Tourist information centres, cafes and shops are generally not of great interest to the public who prefer to pass through the site quickly rather than lingering.

2.14.2 Edinburgh's Ferrytoll site provides an example of the kind of provision which is possible at a large site and has:

- 1040 car parking spaces in a multi-storey and surface car park;
- 10 disabled spaces in the surface car park;
- 17 cycle lockers;
- a car pick-up / drop-off point;
- a covered walkway from multi-storey to waiting room ;
- a telephone (cards only);
- a postbox;
- CCTV;

- a shelter with seating adjacent to bus stop;
- a heated, waiting room adjacent to bus stop with toilets, ticket machines, vending machines, cash machines, seating, television, travel information and a supervisor's office, and
- staff on site from the first bus until the last bus.

2.14.3 Stirling's Springkerse site can be considered an example of excellent provision at a site of modest size and provides:

- car parking;
- disabled parking;
- pedestrian walkways;
- a covered waiting area;
- seating;
- toilets;
- CCTV, and
- staff on site.

2.14.4 Though this can add to operating costs, the most successful forms of waiting room at Park & Ride sites are the buses themselves. Additionally this is likely to attract more passengers than waiting rooms which are commonly poorly used.

2.14.5 It is also important that bus stops in the town / city centre are sheltered, signposted and kept clear of illegally parked cars.

2.15 Landscaping

2.15.1 Landscaping is often highly beneficial, enhancing the quality of the site and mitigating the visual intrusion on the surroundings. It is generally advisable to seek advice from professional landscape architects / designers but, as a general rule:

- landscaping should not interfere with cross site visibility. Low shrubs and mature trees may be mixed while maintaining visibility at eye level though the effect of large trees on CCTV must be considered;
- a landscape screen around the site's perimeter can reduce visual intrusion;
- landscaping can be used to define pedestrian routes though these should not create enclosed spaces which may be a security problem;
- tree species should, preferably, be native species and should not cause damage to vehicle through falling branches, leaves, aphids or shallow roots;
- planting can be used to emphasise the focal points of the site, the entrance and bus pick up points, and
- existing landscape elements should be incorporated where possible.

2.16 Maintenance

2.16.1 Even the best designed site can quickly deteriorate in the absence of effective maintenance. Given this it is important to consider the necessary level of maintenance at the design stage. In particular there will be a need for:

- cleaning and inspection of shelters (and toilets where present);
- rapid removal of graffiti;
- litter collection and road sweeping;
- regular building and surface maintenance, and
- ongoing maintenance of any planting.

2.16.2   As a general rule, annual maintenance of a site will be approximately 7-8% of the construction cost.

2.17   Monitoring and evaluation

2.17.1   Monitoring schemes can help to establish whether they are meeting local authority objectives. Monitoring usually relates to passenger numbers, service quality and impacts on modal splits.

2.17.2   Passenger numbers and times of travel can be drawn from ticketing data but this does not always include off bus ticket sales (like season tickets) and does not allow for analysis of trip purposed, origins, destinations or alternative modes.

2.17.3   Good passenger numbers are a partial indicator of a good quality service though questionnaires on aspects of service quality are a better indicator. It may also be useful to carry out an independent assessment of timekeeping, reliability and cleanliness as this may establish, for example, that while users say that buses are always late they are actually generally on time and it is perceptions which are a problem rather than the service itself.

2.17.4   Impacts on modal split are harder to establish as not all of those using the Park & Ride will have made the shift from "car" to "car then bus". A proportion will originally have taken the bus, walked or cycled and a further proportion would have gone elsewhere or stayed at home.

2.17.5   User questionnaires are helpful in establishing the true level of shift amongst users but cannot give any information on the behaviour of non-users. For example those living downstream from the site may now take advantage of reduced congestion to make journeys by car which they would previously have made in some other way. Changes in vehicle occupancy can also be a major influence on mode share.

2.18   Contract with the bus operator

2.18.1   Local authorities must ensure that the requirements of the service are clearly set out and that there are penalties to encourage correction when the service falls below these requirements. A means of monitoring the service to see that it meets requirements is necessary if penalties are to be enforceable.

2.18.2   It is also useful to include such items as the need for a distinctive brand, modern, well maintained vehicles, operational data and permission to carry out on-board passenger surveys in contracts.

2.18.3   Given the potential high profile of Park & Ride buses, and the environmental aims of the service, It may be appropriate to investigate the use of alternatively powered buses – such as LPG, biofuel, electric or hybrid vehicles. Such vehicles can, however, be costly to buy and run and are likely to be non-standard within an operators fleet.

3. Strategic bus-based Park & Ride

3.1 General

3.1.1 Many of the requirements for strategic bus-based Park & Ride are the same as those for local bus-based Park & Ride. However, a strategic site will usually be situated so as to provide a point for interchange with existing long distance buses rather than on the radial route into a town or city centre.

3.1.2 There is general public acceptance that long distance services do not run as frequently as local services and so there is not the same requirement for a high frequency service. Long distance services also generally operate under brands which already command a high level of public recognition. In terms of cost to the user, there would generally be no reason to charge an amount different from the standard fare.

3.2 Strategic bus-based Park & Ride locations

3.2.1 As a general rule strategic bus-based Park & Ride sites are likely to succeed when:

- they offer overall travel time savings or comparable travel times in combination with reduced journey stress deriving from heavy traffic or difficulty parking;
- the cost of bus travel is competitive with the cost of central parking and the perceived cost of the extra distance which would be driven to reach the centre, and
- the site is easily accessible from the strategic road network.

3.2.2 Local bus, pedestrian and cycle access are important considerations for strategic bus-based Park & Ride sites as there are good reasons to encourage those living near the site to access it using non-car modes as well as providing access to the strategic bus network for households without access to a private vehicle.

3.2.3 Broxden operates successfully on a partially strategic basis. Kinross operates on a wholly strategic basis and whilst current patronage is low the site is new and patronage is expected to improve over time. Both ensure that more long distance services stop at their respective towns than might otherwise be the case.

3.2.4 Strategic sites may also offer increased opportunities for travel for those living near them. For example residents of Kinross without immediate access to a car now have access to bus services which would otherwise have bypassed Kinross altogether. Notably of the five or so passengers observed leaving Kinross during the site audit all entered the site on foot. The use of Broxden as an interchange means that long distance Citylink / Megabus that previously bypassed the town, now stop at the site. Other Citylink / Megabus which historically stopped at the bus station in the town centre, continue to do so.

3.2.5 Recently, the service area on the M8 Edinburgh to Glasgow Motorway at Harthill has been extensively redeveloped to provide two new service stations and a local public transport interchange. Bus services to Glasgow and Edinburgh are provided on both sides of the motorway, with access to car parking from Miller Street, Harthill.

4. Rail-Based Park & Ride

4.1 General

4.1.1 Rail travel across Scotland has increased significantly, particularly for commuting. Changes in lifestyle together with increasing house prices have necessitated that families move away from city centres to commutable locations. As road congestion has increased and city centre parking restraint policies have become more effective, rail travel has, for many, become the fastest way to travel to our towns and cities.

4.1.2 As part of this trend, Rail-based Park & Ride has increased, generally developing on an ad-hoc basis. As demand builds over time, the identification of demand is easier than is the case for new bus-based Park & Ride - it is easily evident as demand for parking starts to outstrip the available supply.

4.1.3 Where additional land is available, best practice may support the extension of car parking facilities as has occurred recently at Montrose and Bridge of Allan.

4.2 Service frequency and station facilities

4.2.1 For all rail-based Park & Ride sites service frequencies, destinations and fares are determined by the rail operator / regulator.

4.2.2 The passenger facilities available within the station itself are determined by the rail authorities on the basis of the station usage and, as most rail travellers either use their nearest station or the nearest station with a more frequent service, there is little potential for significantly increasing the use of a particular station over other stations through enhanced passenger facilities alone. Nevertheless, at less frequently served stations, CCTV, passenger help points and real time passenger information can significantly enhance the perception of the service.

4.3 Service enhancements and new station provision

4.3.1 One of the main drivers in determining the attractiveness of a station for Park & Ride is service frequency. As an example, historically both Dunfermline and Kirkcaldy were served by hourly trains for much of the day with a half hour service to Edinburgh from Inverkeithing. As a consequence, Park & Ride developed at Inverkeithing rather than at the other locations. As service frequency has increased, other stations have become more attractive to Park & Ride, including Rosyth, Dalgety Bay, as well as Dunfermline and Kirkcaldy themselves.

4.3.2 If the Tay Estuary Rail Study identifies an hourly rail service there could be hourly trains from Carnoustie, Monifieth and Broughty Ferry which are likely to result in a significant increase in patronage. Geographically, these locations are not likely to be major rail-based Park & Ride interchange points but all would be expected to attract trips from their immediate surrounding areas. Passenger facilities will need to be upgraded in line with the forecast patronage, including appropriate car parking, disabled parking, cycle parking and local bus, pedestrian and cycle access.

4.3.3 The identification of wholly new rail-based Park & Ride demand is only necessary in the case of a step change in frequency or where construction of a new station is proposed. Under the same study a new station is to be investigated to the west side of Dundee. This site could potentially be of benefit both for western Dundee and for eastern Perth. Again, the provision of

passenger facilities will be determined by forecast demand; the level of pedestrian, cycle and local bus access will depend on the exact location of the station chosen. Nevertheless, the layout of the parking and bus interchange elements of the site should still be in line with the best practice set out here.

4.4 Encouraging travel by non-car modes

4.4.1 Clearly, where possible, passengers should be encouraged to travel by non-car modes. In particular, at major stations, such as Stirling and Dundee, there is a high level of public transport provision. Improved interchange between rail and bus should be the key aim, rather than the provision of additional parking.

4.4.2 Physical constraints often make it difficult to provide effective interchange between bus and rail. In Scotland, Stirling is a relatively good example where bus and rail stations are located close by. At Inverkeithing, the station access has recently been upgraded to provide much improved interchange between bus and rail services.

4.4.3 Efforts can also be made at smaller stations, however. In some cases charging for station parking and parking restrictions on surrounding streets may be sufficient to encourage passengers who live close by to walk or cycle to the station leaving space for those who travel further. Charging regimes and restrictions are already in place at Arbroath, Perth Dundee and Stirling stations.

4.4.4 At all stations in the TACTRAN area, the aim should be to provide:

- good pedestrian access – well surfaced and lit with good signage, and
- cycle racks – either covered of lockable.

4.4.5 Effort should be made to review walk links to identify opportunities for improvement. Rail tracks often act as a barrier to cyclists and pedestrians and can cause severance issues in general. The provision of a new bridge or improved platform access can often reduce walking and cycle times by several minutes, increasing potential demand by slow modes.

5. Park & Choose

5.1 Introduction

5.1.1 This section discusses the modifications required for the successful operation of the variations on the Park & Ride theme (bus-based Park & Ride, rail-based Park & Ride, Park & Walk, Park & Cycle, Walk & Ride, Cycle & Ride).

5.2 Park & Choose

5.2.1 In some cases those arriving at Park & Ride car parks may have a choice between leaving by bus, train, cycle on foot or in a different car.

5.2.2 Park & Walk and Park & Cycle trips do not involve the payment of a bus fare but otherwise can often contribute towards the achievement of sustainable transport aims.

5.2.3 Park & Walk trips generally form a small part of the market as they only attract those with destinations very close to the Park & Ride site. Best practice recommends that there should always be good pedestrian routes into and out of new Park & Ride sites and so there should only be a need to plan for these trips explicitly if there is reason to believe that they will be common; for example because the site is immediately adjacent to an attractive destination which is short of parking.

5.2.4 Park & Walk is a typical pattern for town / city centre car parks and Stirling Council have recently opened a dedicated and branded Park & Walk site close to the city centre with a direct pedestrian link to be provided by way of a footbridge. The quality of the car park provided, should be to the same high standard as that provided for Park & Ride, including; quality surfacing and landscaping, lighting, CCTV and signing. No dedicated public transport service provision is required, although, walking routes to the main destinations being served should be well lit, signed and maintained.

5.2.5 Aside from good pedestrian access with direct routes and high quality surfaces and facilities Park & Walk needs no special provision.

5.2.6 There is only one formal Park & Cycle site in the UK. It is located on the western edge of Cambridge and is open only to University of Cambridge staff. The site is supplied with car parking, lighting, secure cycle lockers under a canopy type shelter, CCTV, security patrols and emergency call points connected to the a Central Security Control Room which is manned 24 hours a day. Though this is an unusual site, the types of facilities provided are similar to those recommended under standard best practice, though provision would necessarily include cycle lockers rather than cycle stands.

5.2.7 Where good bus and rail services coincide and offer a comparable level of service, the choice of mode by the user must clearly be considered but it is unlikely that there would have to be much modification to best practice beyond the consideration of access to both modes.

5.2.8 Currently, the TACTRAN liftshare scheme has some 1,400 members. Park & Ride sites may act as a useful location to meet car sharing colleagues, drop off one or more unused cars and continue a journey to the shared destination. While car sharing travellers will not pay for Park & Ride bus fare, they will still contribute to the achievement of sustainable transport objectives.

5.2.9   Edinburgh's Ferrytoll site offers formal Park & Choose provision. The top deck of the multi-storey is set aside for Park & Choose parking and there is a website, similar to TACTRAN's liftshare scheme, to help users to find others to share with. This ensures that those not needing access to the bus stops park at the greatest distance from them and allows the site's operators to estimate the scale of Park & Choose usage. Informal observations suggest that there are very rarely any more than a handful of vehicles parked on the top deck of the Ferrytoll multi-storey but whether this is because the site is not used for Park & Choose or because Park & Choose users ignore the instructions and park on the lower decks is uncertain.

5.2.10   Either way, the decision to provide Park & Choose parking at the greatest distance from bus stops and other facilities is one that can be readily incorporated into best practice as Park & Choose users will typically have the lowest level of desire for facilities. However, it is advisable to establish whether Park & Choose is occurring before providing designated provision.

5.2.11   Where Park & Choose is so widespread as to have an adverse impact on bus service revenues then charges for car parking may have to be considered. At Glasgow's Shields Road site Park & Ride parking costs £1.50 per day but general parking, or Park & Choose parking, costs £3.50 per day to discourage its use. Public transport users tickets act as a £2 credit voucher to offset the total cost of parking.

5.3   Cycle / Walk & Ride

5.3.1   In general, the use of Park & Ride sites by cyclists is increasing and sheltered cycle parking or cycle lockers should be provided as is the case under standard best practice.

5.3.2   Given the relatively small size of Stirling and Perth, it is unlikely that there will be a large number of intra-urban journeys which would be attractive as Cycle & Ride: it would be quicker to cycle the full distance. Trips within Perth and Stirling are all less than five miles and trips into the town / city centre generally less than three miles. Cycle & Ride is most likely to have a role to play in Dundee.

5.3.3   Bus based Walk & Ride may be a source of additional revenue for Park & Ride bus services but might be a source of concern if it was associated with significant abstraction from the existing bus network. Abstraction can be avoided using the measures outlined in Section 2.9.12.

5.3.4   Rail-based Cycle / Walk & Ride will generally capture trips that are too long to be made wholly on foot or wholly by bicycle. Such trips increase the total number of passengers which can be served by a station with a car park of a given size and contribute to the achievement of sustainable objectives. All stations should be provided with pedestrian and cycle access and with cycle parking unless peculiarities of the location, such as those found at remote locations make cycle and pedestrian usage impractical.

6.   Funding

6.1   Funding sources

6.1.1   There are a number of potential sources of funding including revenue from bus fares or parking charges, quality bus partnerships, planning gains, private developers and the Scottish Government. Any case for funding would need to examine the role of Park & Ride in the wider strategic transport context and to examine the effects of failing to provide Park & Ride. The contribution to be made by a particular scheme will need to be outlined along with operational details and site plans.

6.1.2   An additional source of funding might be edge of town developers, particularly supermarkets as standard supermarket car parking can be combined with Park & Ride parking and partially funded by the developer. Additionally this approach offers the potential to pick up extra bus revenue as bus passengers travel towards the new supermarket.

6.1.3   The capital and operating costs have to be calculated along with changes in central area parking revenue or parking zone enforcement. Revenues from Park & Ride fares will have to be balanced against any change in revenue from central area parking. Cost benefit analysis must be carried out. In addition to the financial costs and benefits, cost benefit analysis must consider social and environmental costs and benefits and compare the costs to the cost of increasing the supply of town centre parking, particularly multi-storey provision.

7. Failure of Park & Ride schemes

7.1 General

7.1.1 There are a number of examples of unsuccessful Park and Ride sites in Scotland and across the UK. Sites often fail because the associated measures proposed, such as additional parking restraint in the town or city centre (through either the removal of parking spaces or increased charges) prove politically sensitive. There have also been examples where coordination between competing town centres has broken down - if only one town or city increases parking charges in the centre, drivers may simply choose to travel to another town. Changes in planning policy also impact upon Park and Ride – the opening of a new out-of-town shopping centre, possibly in a competing local authority area, may necessitate a complete change in town centre parking policy.

7.2 Main reasons for the failure of a Park & Ride scheme

7.2.1 The most common reasons for the failure of a Park & Ride scheme include:

- the scheme is not part of an overall parking strategy;
- car parking at the town or city centre is readily available, free or at low cost;
- it's quicker for motorists to drive straight to the town centre;
- traffic congestion is not severe enough to encourage a change from car to public transport;
- the public transport service from the site to town is not frequent, reliable or of poor quality;
- the site is inconveniently located;
- on-site facilities are poor, and
- security at the scheme site is perceived as a concern.

7.3 Mitigating potential failure

7.3.1 As noted in Section 2.3, Park & Ride is only successful as part of a wider strategy to deter car use through parking restraint in a town or city centre. Where town or city centre parking is cheap or plentiful, it is unlikely that Park & Ride can succeed, despite sites having high quality access and facilities.

7.3.2 Park & Ride is most appropriate for commuter trips; central parking restraint measures should be targeted at these users, with high parking charges for long stay use. This will increase central parking turnover and provide more capacity for shopping, leisure and commerce uses.

7.3.3 Private Non Residential (PNR) Parking can significantly undermine the effectiveness of Park & Ride in removing peak hour commuter trips from the central road network. New provision should be limited as part of the overall parking strategy.

7.3.4 The most common cause of failure of Park & Ride is the failure to enforce the overall parking strategy effectively. This can happen where the developer of a major new central site is insistent on new parking above that identified in the local plan, resulting in an excess of parking supply.

7.3.5 Competition between neighbouring towns and cities can also result in different parking strategies being adopted. Where one town provides cheap and plentiful central parking to support the local economy, it can be difficult for the

neighbouring town to raise central parking charges in order to encourage Park & Ride.

7.3.6   While the high cost of central parking is the main factor in encouraging the use of Park & Ride, traffic management and bus priority measures can help to increase patronage. The lack of these measures together with a poor quality Park & Ride scheme, which offers no travel time savings at a value for money cost, can detrimentally impact upon Park & Ride use.

7.4   Other potential issues

7.4.1   Even when best practice guidelines above are followed there are a range of reasons which may cause Park & Ride sites to fail to achieve all the objectives originally set for them, even those which attract a good level of business. Frequently arising issues and measures to mitigate them are discussed below.

- **Park & Ride may result in an overall increase in total parking provision and so an overall increase in car travel**
  Central park capacity should be monitored and where excess supply is indentified, consideration should be given to redevelopment of other uses

- **Traffic diverting to reach the site may drive further than would have been driven had traffic headed for the centre directly causing a net environmental disbenefit**
  Careful site selection can mitigate this issue, however, the greatest emissions are caused by stationary traffic in town and city centres, where their impact is also highest

- **Increased accessibility may increase the attraction of more remote housing resulting in increased overall travel distances.**
  Park & ride is only one element of the public transport system. A key requirement will be to ensure integration between land-use planning and provision of public transport

- **There may not be a net decrease in traffic and / or congestion downstream of the sites either because previously suppressed demand is released, resulting in more journeys being made overall or because road space allocated to bus priority removes more capacity from the network than is provided by the bus service**
  City centre traffic volumes and congestion should be monitored. Where reductions are identified consideration should be given to reducing road space to improve the pedestrian environment or increase bus priority

- **Existing bus services may not be able to compete with the new Park & Ride service**
  Consultation with bus operators during the planning stage is essential to fully explore the scope for partnership

- **Users may shift from non-car modes, particularly longer distance buses to Park & Ride**
  Careful site selection can mitigate this issue. Park & Ride charges should be set such that while they are competitive with city centre parking charges, they are not too low to result in abstraction from longer distance services. Consultation with bus operator is essential to ensure that potential impacts are mitigated

8.   Summary

8.1   Summary

8.1.1   The purpose of this report is to summarise Best Practice in Park and Ride, based on experience throughout the UK.

8.1.2   Park & Ride can only be successful as part of an overall parking strategy. The car will nearly always be the favoured method of travel as it provides a convenient door to door service. In order to attract motorists, Park & Ride must offer a more efficient, cheaper and / or quicker alternative.

8.1.3   Key elements of any parking strategy must include:

- a parking restraint policy;
- residents parking schemes;
- the promotion of walking and cycling, and
- bus priority measures.

8.1.4   A parking restraint policy should set town and city parking charges to favour short and medium stay use. This will increase turnover and provide for the demands of shopping, leisure and commerce. Parking charges for long stay use should be high to encourage commuters to use the Park & Ride scheme.

8.1.5   High central commuter parking charges will encourage parking on nearby residential streets. Consequently, residents parking schemes, with a high level of enforcement, are essential, adjacent to the central area, to discourage commuter parking.

8.1.6   In order for the Park & Ride strategy to contribute as fully as possible to sustainable transport objectives, it is important that Park & Ride sites function as effectively as possible.

8.1.7   This Best Practice Review outlines the general conditions which must be fulfilled for Park & Ride to be successful. This includes advice on:

- Available research and government guidelines;
- The role of Park & Ride within a parking strategy;
- Estimating demand;
- Site location;
- Signing;
- Site size;
- Charging;
- Bus services and priority measures;
- Branding and marketing;
- Site layout;
- Construction and surfacing;
- Security and lighting;
- Passenger facilities;
- Landscaping;
- Maintenance;
- Monitoring and evaluation, and
- Contract with the bus operator.

8.1.8   Any proposed new TACTRAN Park & Ride site will take the best practice, outlined in this document, into consideration. Strategic bus-based Park & Ride, rail-based Park & Ride, Park & Choose and Walk / Cycle & Ride may require special considerations or adjustments to the general guidance.

Appendix A

Examples of best practice in rail and bus based Park & Ride

Rail based Park & Ride scheme title and location

Newcraighall Station – east of Edinburgh

General description

A rail station providing access to services to all Edinburgh station and to Glasgow and other longer distance destinations. 560 space car park.

Parking strategy	Yes	No
Parking restraint policy in place at key destinations	☑	☐
Parking costs to deter commuter parking at key destinations	☑	☐
Private non residential parking limited at key destinations	☑	☐
Residents parking scheme around controlled parking area at key destinations	☑	☐
Comment: Key destinations include all Edinburgh stations and Glasgow		

Site location	Yes	No
Accessible from a wide catchment	☑	☐
Requires minimal trip diversion	☑	☐
At an existing or independently proposed station stop	☑	☐
Land available and cost acceptable	☑	☐
Outside congested area	☑	☐
Land available for expansion	☑	☐
With an attractive rail service to key destinations	☑	☐
In keeping with surrounding land use	☑	☐
Sensitive to visual intrusion	☑	☐
Safe and easy vehicle access	☑	☐
Pedestrian and cycle access	☑	☐
Comment: Substantial surrounding residential areas require pedestrian and cycle access.		

Site size and layout	Yes	No
Sufficient spaces for demand	☑	☐
Land available for expansion	☑	☐
Good bus interchange (catering for bus and rail trips)	☑	☐
Sufficient, well located, disabled / parent and child bays	☑	☐
Step free access from disabled bays to all parts of station	☑	☐
Comment:		

Signing	Yes	No
Good static directional signing to/from P&R site	☑	☐
Appropriate level of pedestrian signing on-site	☑	☐
Rail station signing at key destinations	☑	☐
Comment:		

Rail service provision	Yes	No
Rail service is at least half-hourly	☑	☐
Appropriate period of operation	☑	☐
Rail services have attractive journey times	☑	☐
Potential abstraction effects form existing services considered	☑	☐
Quality service agreement with operator	☑	☐
Comment: Rail service is half-hourly but rail journey times compete very effectively with those on the congested road network. Bus services are also available.		

Charging	Yes	No
Charging for rail travel	☑	☐
Charging at car park	☑	☐
Charging low compared to parking charges at key destinations	☑	☐
Comment: All day parking costs 50p		

Construction, surfacing, lighting and security	Yes	No
Appropriate surfacing with clear markings	☑	☐
Pedestrian priority provided where appropriate	☑	☐
Consideration given to appropriate landscaping	☑	☐
CCTV provided	☑	☐
Good lighting illumination / impact on neighbouring residents considered	☑	☐
All materials of high quality to reduce maintenance issues	☑	☐
Bus interchange area constructed to an appropriate standard	☑	☐
Comment:		

Passenger facilities	Yes	No
Station staffing levels appropriate for level of usage	☑	☐
Shelter	☑	☐
Travel information	☑	☐
Litter bins	☑	☐
Heated waiting room	☐	☑
Seating	☑	☐
Toilets	☐	☑
Telephone	☐	☑
Vending machine	☐	☑
Cycle lockers	☑	☐
Cycle stands	☑	☐

Comment: This is an unstaffed station

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☑	☐
Passenger satisfaction monitoring	☐	☑
On-going review or rail operator performance	☑	☐

Comment:

Bus based Park & Ride scheme title and location

Ingliston Park & Ride – west of Edinburgh

General description

Medium sized site (535 spaces) with a dedicated bus service to central Edinburgh.

Parking strategy	Yes	No
Parking restraint policy in place in town/city centre	☑	☐
Parking costs to deter commuter parking in town/city centre	☑	☐
Private non residential parking limited	☑	☐
Residents parking scheme around CPZ area	☑	☐
Comment:		

Site location	Yes	No
Adjacent to radial approach	☑	☐
Edge of built up area	☑	☐
Land available and cost acceptable	☑	☐
Outside congested area	☑	☐
Land available for expansion	☑	☐
Adjacent to trip attractors	☑	☐
In keeping with surrounding land use	☑	☐
Sensitive to visual intrusion	☑	☐
Safe and easy vehicle access	☑	☐
Pedestrian and cycle access	☑	☐
Comment: Pedestrian and cycle access is rudimentary as potential demand is extremely low.		

Site size and layout	Yes	No
Sufficient spaces for demand	☑	☐
Land available for expansion	☑	☐
Separate internal route for buses	☑	☐
Is adequate circulation space provided	☑	☐
Sufficient, well located, disabled / parent and child bays	☑	☐
Step free access from disabled bays to bus stop	☑	☐
Comment:		

Signing	Yes	No
Good static directional signing to/from P&R site	☑	☐
Appropriate level of pedestrian signing on-site	☑	☐
VMS signing on major road	☐	☑
Bus Stop signing and information in town/city centre	☐	☑

Comment: Signposting in Edinburgh city centre is minimal but information is available from Lothian Buses and buses are clearly branded.

Bus service provision	Yes	No
High frequency bus service	☑	☐
Appropriate period of operation	☑	☐
Bus priority measures provided as part of scheme	☑	☐
Potential abstraction effects form existing services considered	☑	☐
Quality service agreement with operator	☑	☐

Comment: High level of commercial bus operation reduced abstraction issues and bus was able to extend into previously poorly served areas.

Charging	Yes	No
Charging on bus	☑	☐
Charging at car park	☑	☐
Charging comparable to other bus services	☑	☐
Charging low compared to city centre charges	☑	☐

Comment: Overnight parking is restricted to reduce abuse by travellers to the nearby airport.

Construction, surfacing, lighting and security	Yes	No
Bus circulation area constructed to an appropriate standard	☑	☐
Appropriate surfacing elsewhere with clear markings	☑	☐
Pedestrian priority provided where appropriate	☑	☐
Consideration given to appropriate landscaping	☑	☐
CCTV provided	☑	☐
Good lighting illumination / impact on neighbouring residents considered	☑	☐
All materials of high quality to reduce maintenance issues	☑	☐

Comment:

Passenger facilities	Yes	No
Staffed site (from first to last bus)	☑	☐
Shelter	☑	☐
Travel information	☑	☐
Litter bins	☑	☐
Heated waiting room	☑	☐
Seating	☑	☐
Toilets	☑	☐
Telephone	☑	☐
Vending machine	☑	☐
Cycle lockers	☑	☐
Cycle stands	☑	☐

Comment:

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☑	☐
Passenger satisfaction monitoring	☐	☑
On-going review of bus operator performance	☑	☐

Comment: The site is still quite new and user surveys have yet to be arranged.

Bus based scheme title and location

Sturry Road – east of Canterbury (Kent)

General description

Canterbury's first Park & Ride site numbering some 500 spaces and serving a catchment including Herne Bay, Sandwich and the Isle of Thanet. Now incorporated into an expanding Park & Ride scheme.

Parking strategy	Yes	No
Parking restraint policy in place in town/city centre	☑	☐
Parking costs to deter commuter parking in town/city centre	☑	☐
Private non residential parking limited	☑	☐
Residents parking scheme around CPZ area	☑	☐
Comment: All day charges up to £20		

Site location	Yes	No
Adjacent to radial approach	☑	☐
Edge of built up area	☑	☐
Land available and cost acceptable	☑	☐
Outside congested area	☑	☐
Land available for expansion	☑	☐
Adjacent to trip attractors	☑	☐
In keeping with surrounding land use	☑	☐
Sensitive to visual intrusion	☑	☐
Safe and easy vehicle access	☑	☐
Pedestrian and cycle access	☑	☐
Comment: Site is slightly above the surrounding land and is screened by planting reducing visual intrusion.		

Site size and layout	Yes	No
Sufficient spaces for demand	☑	☐
Land available for expansion	☑	☐
Separate internal route for buses	☑	☐
Is adequate circulation space provided	☑	☐
Sufficient, well located, disabled / parent and child bays	☑	☐
Step free access from disabled bays to bus stop	☑	☐
Comment: Disabled access to bus stops is via a long ramp.		

Signing	Yes	No
Good static directional signing to/from P&R site	☑	☐
Appropriate level of pedestrian signing on-site	☑	☐
VMS signing on major road	☑	☐
Bus Stop signing and information in town/city centre	☑	☐

Comment: Potential users can find out the number of spaces available by texting 'parking to a specified number.

Bus service provision	Yes	No
High frequency bus service	☑	☐
Appropriate period of operation	☑	☐
Bus priority measures provided as part of scheme	☑	☐
Potential abstraction effects form existing services considered	☑	☐
Quality service agreement with operator	☑	☐

Comment:

Charging	Yes	No
Charging on bus	☐	☑
Charging at car park	☑	☐
Charging comparable to other bus services	☐	☑
Charging low compared to city centre charges	☑	☐

Comment: Parking costs £2.50 per day (£2.00 for season ticket holders). Up to seven people can travel for this price. Non Park & Ride users typically pay £2.50 for a day's unlimited Park & Ride bus travel. Park & Ride users in groups therefore receive a substantial discount.

Construction, surfacing, lighting and security	Yes	No
Bus circulation area constructed to an appropriate standard	☑	☐
Appropriate surfacing elsewhere with clear markings	☑	☐
Pedestrian priority provided where appropriate	☑	☐
Consideration given to appropriate landscaping	☑	☐
CCTV provided	☑	☐
Good lighting illumination / impact on neighbouring residents considered	☑	☐
All materials of high quality to reduce maintenance issues	☑	☐

Comment:

Passenger facilities	Yes	No
Staffed site (from first to last bus)	☑	☐
Shelter	☑	☐
Travel information	☑	☐
Litter bins	☑	☐
Heated waiting room	☑	☐
Seating	☑	☐
Toilets	☑	☐
Telephone	☑	☐
Vending machine	☑	☐
Cycle lockers	☐	☑
Cycle stands	☐	☑

Comment: The potential cycle catchment is largely filled with non-residential developments

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☑	☐
Passenger satisfaction monitoring	☑	☐
On-going review of bus operator performance	☑	☐

Comment:

Bus based Park & Ride scheme title and location

Pear tree Park & Ride, northwest of Oxford

General description

A large site (1100 spaces) forming part of an extensive Park & Ride network

Parking strategy	Yes	No
Parking restraint policy in place in town/city centre	☑	☐
Parking costs to deter commuter parking in town/city centre	☑	☐
Private non residential parking limited	☑	☐
Residents parking scheme around CPZ area	☑	☐

Comment: Parking is very limited in historic city centre. Central charges are as high as £25 and restrictions apply from 08:00 to 20:00.

Site location	Yes	No
Adjacent to radial approach	☑	☐
Edge of built up area	☑	☐
Land available and cost acceptable	☑	☐
Outside congested area	☑	☐
Land available for expansion	☑	☐
Adjacent to trip attractors	☑	☐
In keeping with surrounding land use	☑	☐
Sensitive to visual intrusion	☑	☐
Safe and easy vehicle access	☑	☐
Pedestrian and cycle access	☑	☐

Comment: Site is flat and well hidden by surrounding trees.

Site size and layout	Yes	No
Sufficient spaces for demand	☑	☐
Land available for expansion	☑	☐
Separate internal route for buses	☑	☐
Is adequate circulation space provided	☑	☐
Sufficient, well located, disabled / parent and child bays	☑	☐
Step free access from disabled bays to bus stop	☑	☐

Comment:

Signing	Yes	No
Good static directional signing to/from P&R site	☑	☐
Appropriate level of pedestrian signing on-site	☑	☐
VMS signing on major road	☐	☑
Bus Stop signing and information in town/city centre	☑	☐

Comment:

Bus service provision	Yes	No
High frequency bus service	☑	☐
Appropriate period of operation	☑	☐
Bus priority measures provided as part of scheme	☑	☐
Potential abstraction effects form existing services considered	☑	☐
Quality service agreement with operator	☑	☐

Comment: Oxford has a network or Park & Ride buses

Charging	Yes	No
Charging on bus	☑	☐
Charging at car park	☑	☐
Charging comparable to other bus services	☑	☐
Charging low compared to city centre charges	☑	☐

Comment: £1 charge for parking plus £2.50 return bus fare. Season tickets and special rates for pairs of travellers.

Construction, surfacing, lighting and security	Yes	No
Bus circulation area constructed to an appropriate standard	☑	☐
Appropriate surfacing elsewhere with clear markings	☑	☐
Pedestrian priority provided where appropriate	☑	☐
Consideration given to appropriate landscaping	☑	☐
CCTV provided	☑	☐
Good lighting illumination / impact on neighbouring residents considered	☑	☐
All materials of high quality to reduce maintenance issues	☑	☐

Comment:

Passenger facilities	Yes	No
Staffed site (from first to last bus)	☐	☑
Shelter	☑	☐
Travel information	☑	☐
Litter bins	☑	☐
Heated waiting room	☐	☑
Seating	☑	☐
Toilets	☐	☑
Telephone	☐	☑
Vending machine	☐	☑
Cycle lockers	☐	☑
Cycle stands	☑	☐

Comment: Established Park & Ride habits and high central parking charges reduce the need for attractive facilites.

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☑	☐
Passenger satisfaction monitoring	☑	☐
On-going review of bus operator performance	☑	☐

Comment:

Appendix B

Examples of best practice in TACTRAN area

Bus based Park & Ride scheme title and location

Broxden Park & Ride: west of Perth

General description

An expanding site (250 spaces rising to 406) fulfilling both a local role (for trips into Perth) and a longer distance strategic role (coach interchange point). Serves a very wide catchment area.

Parking strategy	Yes	No
Parking restraint policy in place in town/city centre	☑	☐
Parking costs to deter commuter parking in town/city centre	☑	☐
Private non residential parking limited	☑	☐
Residents parking scheme around CPZ area	☑	☐

Comment: Central parking charges are not particularly high but central parking is often crowded and geographic factors limit the availability of private non-residential space.

Site location	Yes	No
Adjacent to radial approach	☑	☐
Edge of built up area	☑	☐
Land available and cost acceptable	☑	☐
Outside congested area	☑	☐
Land available for expansion	☐	☑
Adjacent to trip attractors	☐	☑
In keeping with surrounding land use	☑	☐
Sensitive to visual intrusion	☑	☐
Safe and easy vehicle access	☑	☐
Pedestrian and cycle access	☑	☐

Comment: Available land for expansion has now largely been taken up by expansion. There are no major attractors adjacent to the site but there is a small amount of two-way flow into adjacent housing developments.

Site size and layout	Yes	No
Sufficient spaces for demand	☐	☑
Land available for expansion	☐	☑
Separate internal route for buses	☑	☐
Is adequate circulation space provided	☑	☐
Sufficient, well located, disabled / parent and child bays	☑	☐
Step free access from disabled bays to bus stop	☑	☐

Comment: Site size is currently too small to meet demand but an expansion will open shortly.

Signing	Yes	No
Good static directional signing to/from P&R site	☑	☐
Appropriate level of pedestrian signing on-site	☑	☐
VMS signing on major road	☐	☑
Bus Stop signing and information in town/city centre	☐	☑
Comment: Central bus stop signing and information is limited.		

Bus service provision	Yes	No
High frequency bus service	☑	☐
Appropriate period of operation	☑	☐
Bus priority measures provided as part of scheme	☐	☑
Potential abstraction effects form existing services considered	☑	☐
Quality service agreement with operator	☑	☐
Comment: Potential for bus priority is limited by a lack of road space. Buses serve new housing developments which did not have pre-existing services.		

Charging	Yes	No
Charging on bus	☑	☐
Charging at car park	☐	☑
Charging comparable to other bus services	☑	☐
Charging low compared to city centre charges	☑	☐
Comment:		

Construction, surfacing, lighting and security	Yes	No
Bus circulation area constructed to an appropriate standard	☑	☐
Appropriate surfacing elsewhere with clear markings	☑	☐
Pedestrian priority provided where appropriate	☑	☐
Consideration given to appropriate landscaping	☑	☐
CCTV provided	☑	☐
Good lighting illumination / impact on neighbouring residents considered	☑	☐
All materials of high quality to reduce maintenance issues	☑	☐
Comment: Site is currently somewhat cramped but an extension will open soon.		

Passenger facilities	Yes	No
Staffed site (from first to last bus)	☐	☑
Shelter	☑	☐
Travel information	☑	☐
Litter bins	☑	☐
Heated waiting room	☐	☑
Seating	☑	☐
Toilets	☐	☑
Telephone	☐	☑
Vending machine	☐	☑
Cycle lockers	☐	☑
Cycle stands	☑	☐

Comment: Enhanced facilities are being considered as the site expands.

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☑	☐
Passenger satisfaction monitoring	☑	☐
On-going review of bus operator performance	☑	☐

Comment:

Bus based Park & Ride scheme title and location

Springkerse Park & Ride: east of Stirling

General description

A small site (200 spaces) serving a catchment extending from Tillicoultry to Grangemouth. Buses to the city centre run every 12 minutes and have access to a bus only link

Parking strategy	Yes	No
Parking restraint policy in place in town/city centre	☑	☐
Parking costs to deter commuter parking in town/city centre	☑	☐
Private non residential parking limited	☐	☑
Residents parking scheme around CPZ area	☑	☐

Comment: Central parking charges are not particularly high for an all day stay.

Site location	Yes	No
Adjacent to radial approach	☐	☑
Edge of built up area	☑	☐
Land available and cost acceptable	☑	☐
Outside congested area	☑	☐
Land available for expansion	☐	☑
Adjacent to trip attractors	☑	☐
In keeping with surrounding land use	☑	☐
Sensitive to visual intrusion	☑	☐
Safe and easy vehicle access	☑	☐
Pedestrian and cycle access	☑	☐

Comment: While there is no land for expansion there is space for expansion into adjacent under used retail park car parks.

Site size and layout	Yes	No
Sufficient spaces for demand	☑	☐
Land available for expansion	☐	☑
Separate internal route for buses	☑	☐
Is adequate circulation space provided	☑	☐
Sufficient, well located, disabled / parent and child bays	☑	☐
Step free access from disabled bays to bus stop	☑	☐

Comment: Demand is growing and the site spills into adjacent retail park car parks occasionally.

Signing	Yes	No
Good static directional signing to/from P&R site	☑	☐
Appropriate level of pedestrian signing on-site	☑	☐
VMS signing on major road	☐	☑
Bus Stop signing and information in town/city centre	☐	☑

Comment: City centre signposting is minimal.

Bus service provision	Yes	No
High frequency bus service	☑	☐
Appropriate period of operation	☑	☐
Bus priority measures provided as part of scheme	☑	☐
Potential abstraction effects form existing services considered	☑	☐
Quality service agreement with operator	☑	☐

Comment: Bus has access to a bus only link and pre-existing bus services were minimal.

Charging	Yes	No
Charging on bus	☑	☐
Charging at car park	☐	☑
Charging comparable to other bus services	☑	☐
Charging low compared to city centre charges	☑	☐

Comment: Two way flows on the bus service increase revenues.

Construction, surfacing, lighting and security	Yes	No
Bus circulation area constructed to an appropriate standard	☑	☐
Appropriate surfacing elsewhere with clear markings	☑	☐
Pedestrian priority provided where appropriate	☑	☐
Consideration given to appropriate landscaping	☑	☐
CCTV provided	☑	☐
Good lighting illumination / impact on neighbouring residents considered	☑	☐
All materials of high quality to reduce maintenance issues	☑	☐

Comment: Site is outwith a residential area and so there are no neighbouring residents.

Passenger facilities	Yes	No
Staffed site (from first to last bus)	☑	☐
Shelter	☑	☐
Travel information	☑	☐
Litter bins	☑	☐
Heated waiting room	☐	☑
Seating	☑	☐
Toilets	☑	☐
Telephone	☐	☑
Vending machine	☐	☑
Cycle lockers	☐	☑
Cycle stands	☐	☑

Comment: There is a covered waiting area and buses are often available in place of heated waiting rooms.

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☑	☐
Passenger satisfaction monitoring	☐	☑
On-going review of bus operator performance	☑	☐

Comment: The site is new and regular satisfaction and usage surveys have not yet been arranged.

Appendix C

Blank pro formas for use with any future Park & Ride scheme

tactran
Tayside and Central Scotland
Transport Partnership

Scheme title and location

| |
| |

General description

| |
| |

Parking strategy	Yes	No
Parking restraint policy in place in town/city centre	☐	☐
Parking costs to deter commuter parking in town/city centre	☐	☐
Private non residential parking limited	☐	☐
Residents parking scheme around CPZ area	☐	☐

Comment:

Site location	Yes	No
Adjacent to radial approach	☐	☐
Edge of built up area	☐	☐
Land available and cost acceptable	☐	☐
Outside congested area	☐	☐
Land available for expansion	☐	☐
Adjacent to trip attractors	☐	☐
In keeping with surrounding land use	☐	☐
Sensitive to visual intrusion	☐	☐
Safe and easy vehicle access	☐	☐
Pedestrian and cycle access	☐	☐

Comment:

Bus based Park & Ride

tactran
Tayside and Central Scotland
Transport Partnership

Site size and layout	Yes	No
Sufficient spaces for demand	☐	☐
Land available for expansion	☐	☐
Separate internal route for buses	☐	☐
Is adequate circulation space provided	☐	☐
Sufficient, well located, disabled / parent and child bays	☐	☐
Step free access from disabled bays to bus stop	☐	☐

Comment:

Signing	Yes	No
Good static directional signing to/from P&R site	☐	☐
Appropriate level of pedestrian signing on-site	☐	☐
VMS signing on major road	☐	☐
Bus Stop signing and information in town/city centre	☐	☐

Comment:

Bus service provision	Yes	No
High frequency bus service	☐	☐
Appropriate period of operation	☐	☐
Bus priority measures provided as part of scheme	☐	☐
Potential abstraction effects form existing services considered	☐	☐
Quality service agreement with operator	☐	☐

Comment:

Charging	Yes	No
Charging on bus	☐	☐
Charging at car park	☐	☐
Charging comparable to other bus services	☐	☐
Charging low compared to city centre charges	☐	☐

Comment:

Construction, surfacing, lighting and security	Yes	No
Bus circulation area constructed to an appropriate standard	☐	☐
Appropriate surfacing elsewhere with clear markings	☐	☐
Pedestrian priority provided where appropriate	☐	☐
Consideration given to appropriate landscaping	☐	☐
CCTV provided	☐	☐
Good lighting illumination / impact on neighbouring residents considered	☐	☐
All materials of high quality to reduce maintenance issues	☐	☐

Comment:

Passenger facilities	Yes	No
Staffed site (from first to last bus)	☐	☐
Shelter	☐	☐
Travel information	☐	☐
Litter bins	☐	☐
Heated waiting room	☐	☐
Seating	☐	☐
Toilets	☐	☐
Telephone	☐	☐
Vending machine	☐	☐
Cycle lockers	☐	☐
Cycle stands	☐	☐

Comment:

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☐	☐
Passenger satisfaction monitoring	☐	☐
On-going review of bus operator performance	☐	☐

Comment:

Rail based Park & Ride

Scheme title and location

General description

Parking strategy	Yes	No
Parking restraint policy in place at key destinations	☐	☐
Parking costs to deter commuter parking at key destinations	☐	☐
Private non residential parking limited at key destinations	☐	☐
Residents parking scheme around controlled parking area at key destinations	☐	☐

Comment:

Site location	Yes	No
Accessible from a wide catchment	☐	☐
Requires minimal trip diversion	☐	☐
At an existing or independently proposed station stop	☐	☐
Land available and cost acceptable	☐	☐
Outside congested area	☐	☐
Land available for expansion	☐	☐
With an attractive rail service to key destinations	☐	☐
In keeping with surrounding land use	☐	☐
Sensitive to visual intrusion	☐	☐
Safe and easy vehicle access	☐	☐
Pedestrian and cycle access	☐	☐

Comment:

Rail based Park & Ride

Site size and layout	Yes	No
Sufficient spaces for demand	☐	☐
Land available for expansion	☐	☐
Good bus interchange (catering for bus and rail trips)	☐	☐
Sufficient, well located, disabled / parent and child bays	☐	☐
Step free access from disabled bays to all parts of station	☐	☐

Comment:

Signing	Yes	No
Good static directional signing to/from P&R site	☐	☐
Appropriate level of pedestrian signing on-site	☐	☐
Rail station signing at key destinations	☐	☐

Comment:

Rail service provision	Yes	No
Rail service is at least half-hourly	☐	☐
Appropriate period of operation	☐	☐
Rail services have attractive journey times	☐	☐
Potential abstraction effects form existing services considered	☐	☐
Quality service agreement with operator	☐	☐

Comment:

Charging	Yes	No
Charging for rail travel	☐	☐
Charging at car park	☐	☐
Charging low compared to parking charges at key destinations	☐	☐

Comment:

Best practice pro forma
Rail based Park & Ride

Construction, surfacing, lighting and security	Yes	No
Appropriate surfacing with clear markings	☐	☐
Pedestrian priority provided where appropriate	☐	☐
Consideration given to appropriate landscaping	☐	☐
CCTV provided	☐	☐
Good lighting illumination / impact on neighbouring residents considered	☐	☐
All materials of high quality to reduce maintenance issues	☐	☐
Bus interchange area constructed to an appropriate standard	☐	☐

Comment:

Passenger facilities	Yes	No
Station staffing levels appropriate for level of usage	☐	☐
Shelter	☐	☐
Travel information	☐	☐
Litter bins	☐	☐
Heated waiting room	☐	☐
Seating	☐	☐
Toilets	☐	☐
Telephone	☐	☐
Vending machine	☐	☐
Cycle lockers	☐	☐
Cycle stands	☐	☐

Comment:

Maintenance, monitoring and evaluation	Yes	No
Maintenance programme and budget established	☐	☐
Passenger satisfaction monitoring	☐	☐
On-going review or rail operator performance	☐	☐

Comment: