

Background Report

Renfrewshire Transport Paper



Introduction

This transport background paper has been produced to support the Renfrewshire Main Issues Report and Strategic Environmental Assessment Environmental Report. The paper provides an initial transport appraisal in the early stages of the development plan process, helping to inform the Council's spatial strategies.

The transport implications of the main issues have been appraised in line with Transport Scotland's Development Planning and Management Transport Appraisal Guidance (DPMTAG).

Purpose of Transport Appraisal

The purpose of undertaking an appraisal at this stage in preparing the development plan is as follows:

- Outlines from the outset the importance in the relationship between transport and land use planning especially in aiming to achieve a step change towards more sustainable travel;
- Provides an evidence base, setting out the current transport network as well as providing the current policy framework within which the Renfrewshire Main Issues report is set;
- Provides an indication of the future transport and accessibility issues resulting from potential land use changes; and
- Presents the preferred spatial strategies outlining the transport implications and indicating a requirement for any transport interventions.

Key Questions

As set out in DPMTAG, the key questions that require to be answered by undertaking this transport appraisal are as follows:

- What is the overall vision for the plan area?
- What are the key issues/challenges that are emerging?
- How is the Strategic Transport Network likely to perform over the life of the Local Development Plan (LDP)?
- What is the relationship between demand and supply, and how will this affect the performance of the Strategic Transport Network?
- What is the cumulative impact of the plan proposals on travel demand and can this be adequately accommodated?
- What are the wider policy impacts (social, economic and environmental)?
- How does the need for interventions compare with other national priorities in terms of impact on sustainable economic growth?

Level of Appraisal

As agreed at the meeting on the 30 August 2011 with representatives from Transport Scotland, Strathclyde Partnership for Transport (SPT) and Renfrewshire Council, the transport appraisal will be carried out to a Level 2 appraisal and this will be followed up by a Level 3 appraisal at the Proposed Plan stage.

SPT has supported Renfrewshire Council in conducting this transport appraisal to a level 2 stage by undertaking an assessment using the Strathclyde Integrated Transport and Land

Use Model (SITLUM) and the Strathclyde Integrated Transport Model (SITM4), to provide the forecast transport network interaction for the Renfrewshire Council area for the period 2014 to 2019.

The analysis by SPT was based on the current and forecast land use planning data supplied from Transport Scotland's LATIS service (Land-use and Transport Integration in Scotland) and Oxford Economics land use and economic forecasts produced for the Glasgow and Clyde Valley Strategic Development Plan Authority. The outputs from this modelling work have informed this transport appraisal. The full report detailing the analysis of the modelling outputs can be found on Renfrewshire Council's Local Development Plan webpage at www.renfrewshire.gov.uk.

Plans & Strategies

The relationship between transport and spatial planning is closely interwoven. Minimising the need to travel is a key consideration in the preparation of the new Renfrewshire LDP. The development of the LDP objectives along with the preferred options was significantly influenced by travel and transport considerations. Locating new developments close to existing services, facilities and transport infrastructure was considered important in helping to meet the challenging emission reduction targets set out in the Climate Change (Scotland) Act 2009.

It is recognised that the important relationship between transport and land use planning is a common theme in national policy through Scottish Planning Policy, the National Planning Framework 2 (NPF2) and the National Transport Strategy (NTS). All of these documents outline the Scottish Government's commitment to ensuring land use considerations make the best use of the existing transport networks and that transport issues are addressed at the outset.

In putting forward land use proposals for the new LDP regard was given to the Scottish Government's future transport investment priorities set out in the Strategic Transport Projects Review (STPR) which outlines 29 recommendations for intervention investments. Seven infrastructure improvement projects identified in the STPR are relevant to the Renfrewshire area, these are:

STPR Intervention

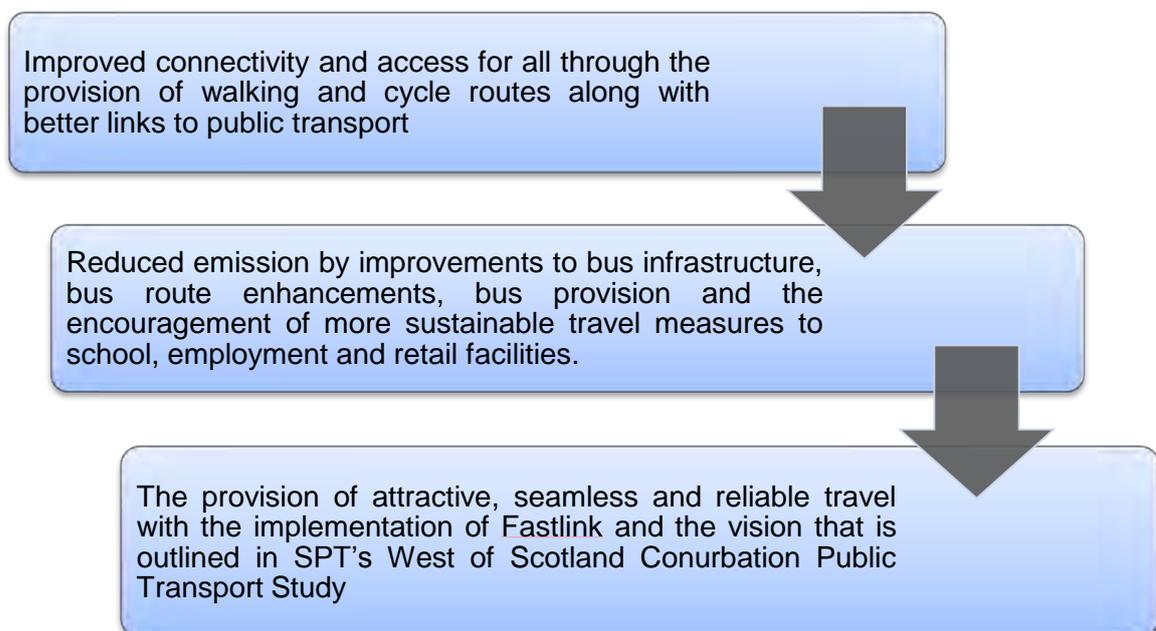
Intervention 2 -	Maintaining and safely operating Scotland's rail network
Intervention 6 -	Further electrification of the strategic rail network
Intervention 8 -	Strategic park & ride / park & choose strategy
Intervention 9 -	Using Intelligent Transport Systems on parts of the road network to enhance road capacity and operations
Intervention 22 -	Targeted road congestion / environmental relief schemes
Intervention 24 -	West of Scotland Strategic Rail Enhancements
Intervention 26 -	Rail Enhancements between Inverclyde, Ayrshire and Glasgow

The projects identified in the STPR should once implemented lead to a more efficient and effective transport system essential for sustainable economic growth and help in planning for development in the area.

The Glasgow and the Clyde Valley Strategic Development Plan (SDP) Proposed Plan places sustainable travel along with the prioritisation of locations that are accessible by sustainable modes of transport as one of the key components of its spatial vision. Good connectivity is also considered essential with links to wider economic markets through more efficient access to Glasgow Airport, the promotion of High Speed Rail (HSR) and a more strategic long term focus on sustainable freight movements. As the SDP sets the spatial vision and strategy for the area, many of these components will be translated into the Renfrewshire LDP.

As part of translating this vision, Strategy Support Measure 7 within the SDP Proposed Plan, promotes a long-term step change toward sustainable transport. To achieve this Renfrewshire Council requires to work in partnership with the other constituent councils in the Glasgow and the Clyde Valley area to agree a programme for sustainable transport investment and measures.

Strathclyde Partnership for Transport (SPT) Regional Transport Strategy 2008 - 2021 'A Catalyst for Change' provides a statutory framework to improve strategic transport connections for the west of Scotland. Renfrewshire is constituent council within the Regional Transport Partnership and provides resources to SPT to co-ordinate and help implement a fast, efficient, accessible and reliable transport system getting people to move around more sustainably. Each year a collective decision is made on the transport priorities for Renfrewshire. The travel and transport priorities that have been agreed and implemented over the last few years cover the following areas:

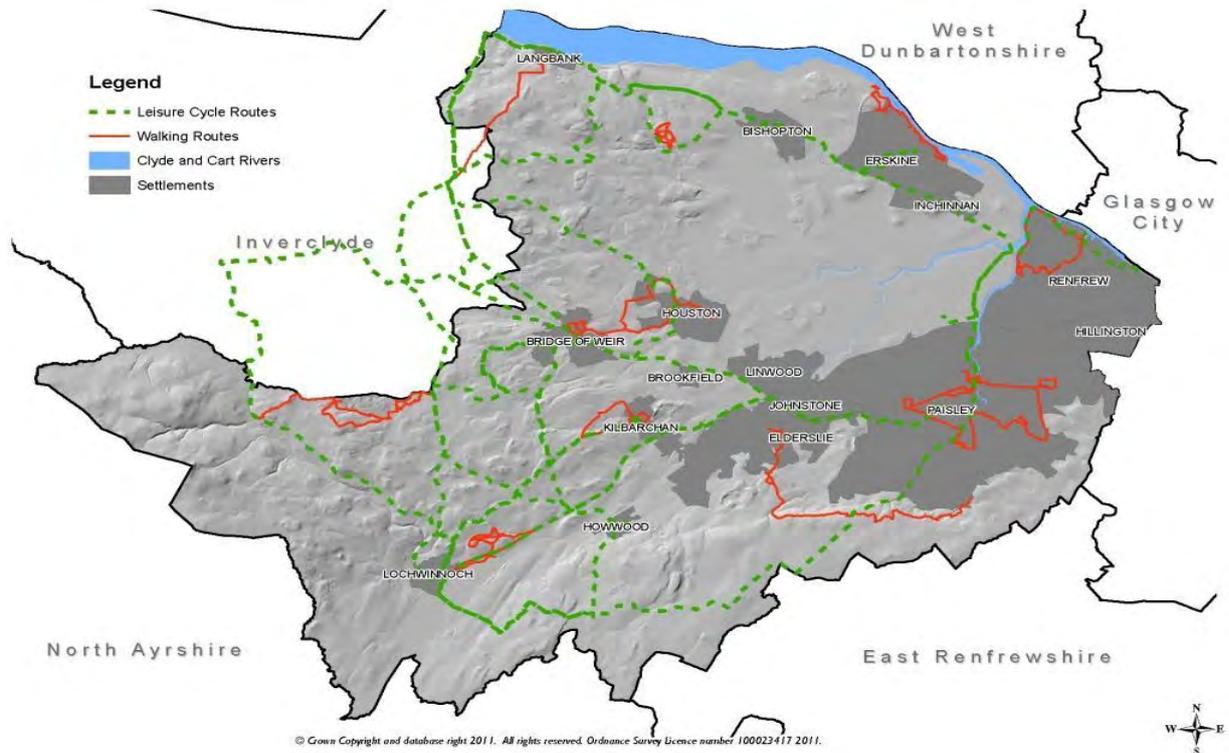


Renfrewshire's Local Transport Strategy (LTS) reflects the themes and messages from the both the national and regional transport strategies. The actions outlined in the LTS which was published in 2007 are still relevant and will need to be reflected in the new LDP.

Current Transport Network

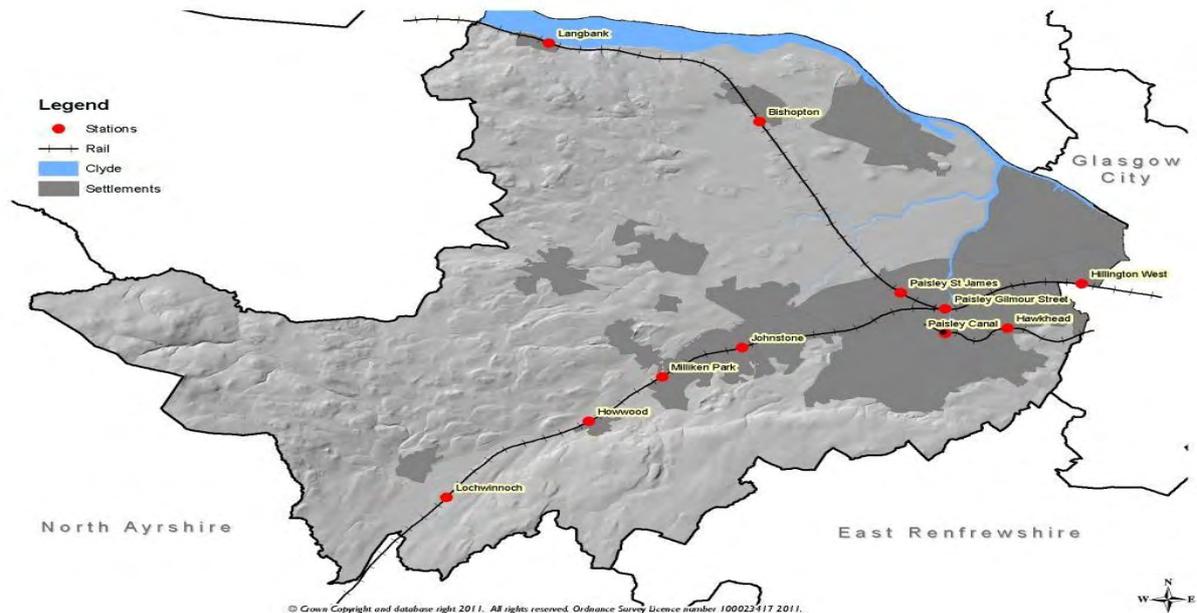
There are a number of access routes in an around Renfrewshire, including an extensive network of paths with 291 core paths and two national cycle routes. The principle walking and cycling routes in Renfrewshire are shown in Figure 1 below.

Figure 1: Renfrewshire's Principle Walking & Cycling Routes



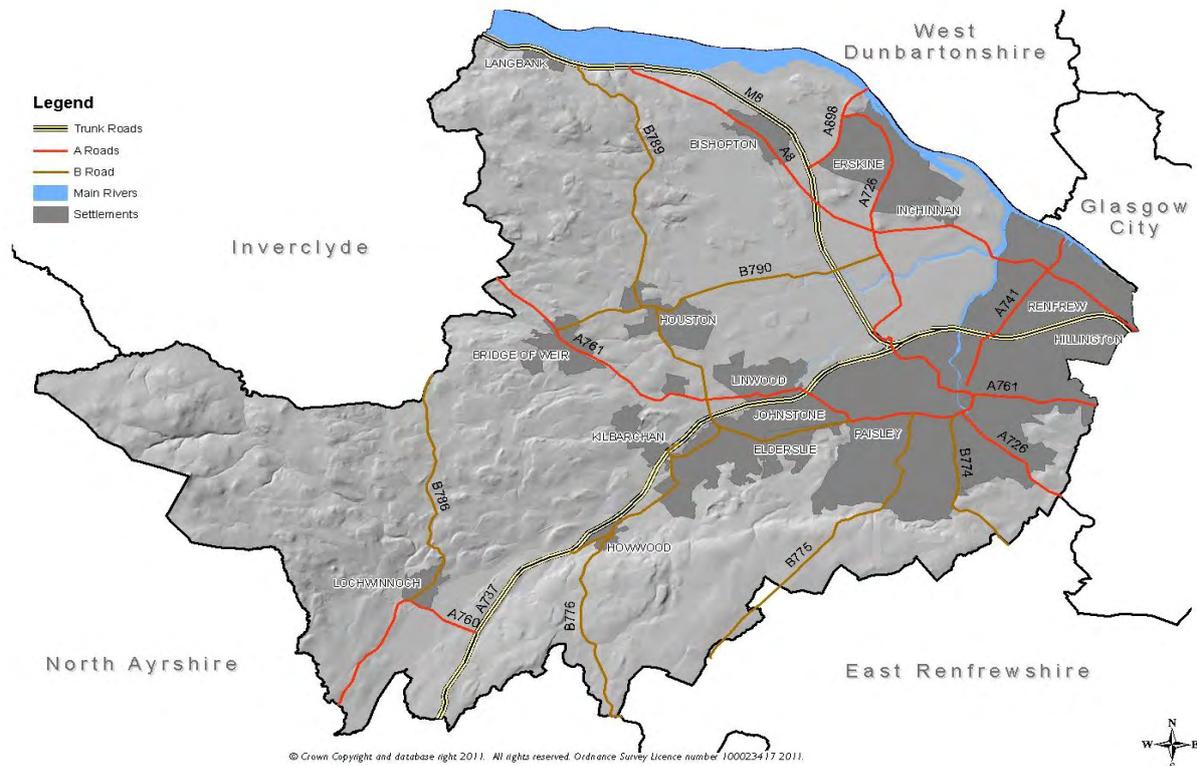
Renfrewshire is also well connected to surrounding areas by rail. The rail stations are shown in Figure 2.

Figure 2: Renfrewshire Rail Stations



Within the Renfrewshire area there are over 860 kilometres of roads with the strategic road network consisting of M8, A8 and the A737 being the main arterial routes through the area connecting to Glasgow, Inverclyde and Ayrshire. Other main routes include the A726, A741, A761 and the A898. These routes are indicated in Figure 3.

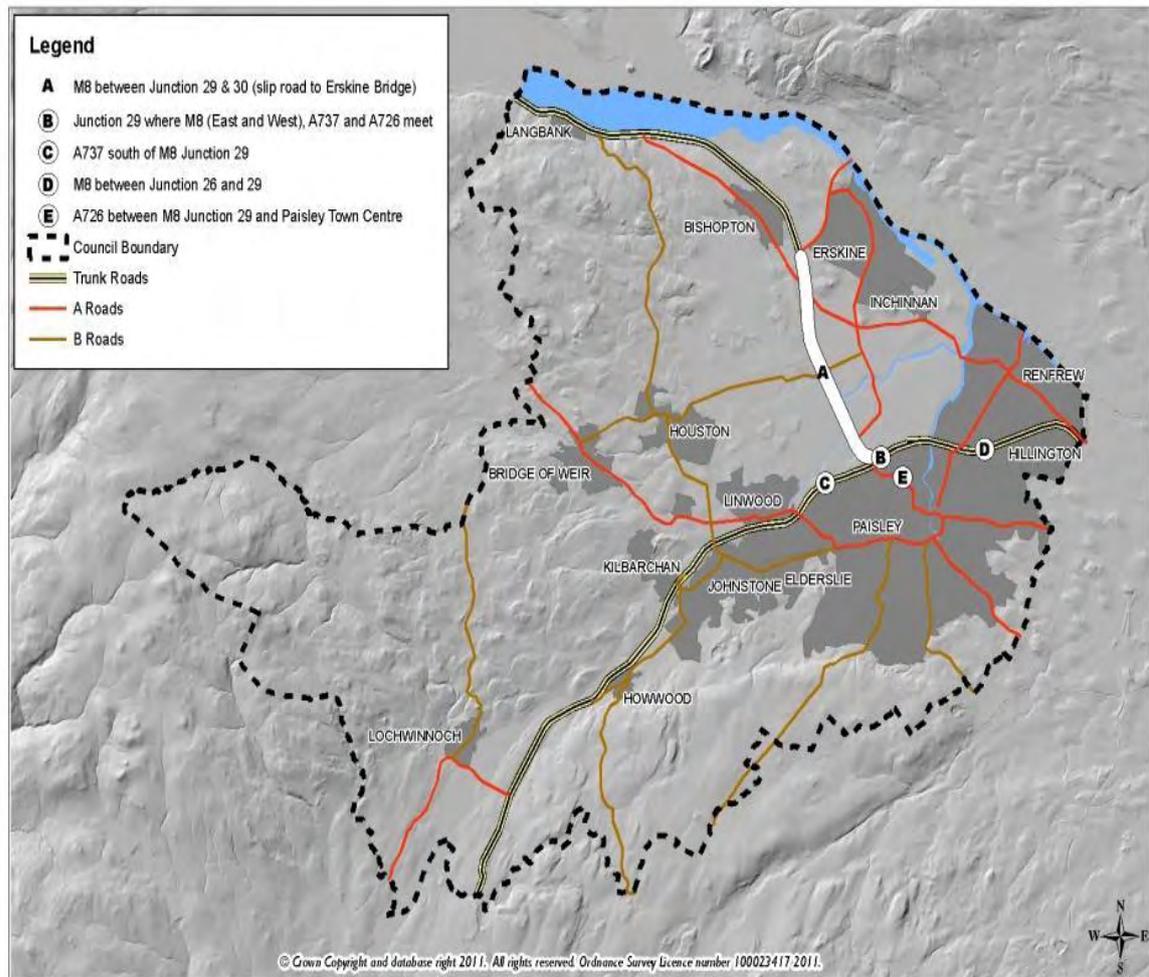
Figure 3: Renfrewshire Roads



It is considered that Renfrewshire has a good rail and road network with frequent public transport services found in many areas. However a current constraint is a lack of access to and availability of good public transport provision in and around Renfrewshire’s villages, particularly in the evening and at the weekends. Therefore any proposals to develop in and around our village centres may represent an unsustainable approach to development planning. It is considered that the ability to change bus services in an area can be achieved as buses are flexible in comparison to other forms of public transport, however bus services in most villages require to be subsidised as the demand for the service is normally low and therefore uneconomical. SPT already provides supported bus services in and around rural Renfrewshire. However as budgets tighten, the availability of resources to even maintain the current level of service may be questionable in the long term. Therefore this has to be a consideration when setting out land-use proposals for the forthcoming LDP.

In terms of congestion hotspots and capacity pinch points on the strategic road network at peak times these are highlighted in Figure 4. These constraints require to be taken into account when setting out land-use proposals in the LDP.

Figure 4: Congestion hotspots and capacity pinch points



Renfrewshire Local Development Plan Vision & Objectives

The Glasgow and Clyde Valley Strategic Development Plan sets out the spatial vision to 2035. The focus is on regeneration and transformation of the city region's communities whilst promoting positive improvements to the environment. The SDP sets the vision for the area and the Renfrewshire Local Development Plan will have a significant role in delivering this vision. The objectives set out in the Renfrewshire Main Issue Report aim to deliver the spatial vision. These objectives are as follows:

Development location supported by existing or planned physical infrastructure and services

Regeneration and renewal of existing urban areas as energy efficient, healthy and safe places

Development that neither individually nor cumulatively causes significant environmental impacts

An enhancement in the natural and built heritage environment of Renfrewshire in support of the health of its communities, attractiveness of its places and setting for economic recovery

The regeneration and evolution of SDP strategic centres and other town and village centres as places of municipal, commercial and community value

A framework for local solutions to energy needs and waste generation

Measures to reduce and mitigate for the effects of climate change

Renfrewshire's Main Issues

Through extensive pre main issues consultation and engagement with various stakeholders, five main issues were identified, these are as follows:

<p>1. Stimulating the local economy</p> <ul style="list-style-type: none">• Promoting key companies and locations• Improving infrastructure for local economic growth	<p>2. Housing</p> <ul style="list-style-type: none">• Need for new sites for house building near transport, employment and community facilities• Need for mixed use and mixed tenure Developments
<p>3. Regenerating town centres</p> <ul style="list-style-type: none">• Get more people living in centres• Promote the individuality of centres	<p>4. Environment</p> <ul style="list-style-type: none">• Provide accessible, safe, good quality green spaces• Deal with energy and waste targets
<p>5. Transport</p> <ul style="list-style-type: none">• Choose development locations near public transport• Encourage mixed use communities	

Transport Forecasting for Renfrewshire Local Development Plan

The transport forecasting for the Renfrewshire LDP was undertaken by SPT and supplied to Renfrewshire Council to forecast the transport network interaction with land-use planning. The modelling process applied a range of transport infrastructure, planning, economic and demographic baseline data along with projections in population, the number of households, employment numbers, car ownership, future levels of traffic/travel and future development of the transport network.

As well as the predicted forecast changes in many of the factors outlined above, the modelling process assumed a number of already committed and proposed transport interventions were in place, these include the following:

- Airdrie-Bathgate rail line and services
- M74 Completion
- M80 Stepps to Haggs
- East End Regeneration Route
- Kirkintilloch Link Road
- Bishopbriggs Relief Road
- M8 Baillieston to Newhouse
- Edinburgh Glasgow Improvements Programme

The analysis of the modelling output were undertaken in two periods from 2011 to 2014 and then from 2014 to 2019. This presents information at the time of publishing the MIR and covers the lifetime of the LDP.

SPT's full report is a separate background paper to the MIR and can be found on Renfrewshire Council's website.

A summary of the modelling outputs from the SITLUM model are as follows:

- There is predicted to be a small decrease in population of just under 2% between 2014 and 2019 for the whole of Renfrewshire, allied to an increase in the number of households by about 9%. The reduction in population is spread across Renfrewshire with the areas around the Gryffe Valley showing the largest drop of up to 7%. The only location showing a small increase in population is the residential development area around Braehead. The settlements from Paisley through to Lochwinnoch shows changes of 3-4% reduction, with a slightly lower reduction on the west side of Paisley of around 1-2%.
- In contrast to the predicted population decline in Renfrewshire, the number of households continues to grow across the Council area. The combination of reducing population and rising households, reflects the current trend of reducing household size. Households growth is expected to be concentrated in the urban areas.
- It is predicted that there will be very little change in the total number of people in employment across Renfrewshire with a small increase of just under 1%. There is though likely to be some variation in the changes within zones in parts of rural areas in the north of Renfrewshire, for example from Langbank through Bishopton towards Paisley showing a small decrease and the remainder of the Council area showing small increases with the highest 2-3% in the residential areas in the north of Paisley.
- In Renfrewshire around 35% of households do not own a car and this percentage is forecast to remain steady over the period to 2019. In effect, however, this raises the

number of zero car owning households to over 31,000. There is a growth of 18% in the number of households with one car and a decrease of around 11% of households with two or more cars.

- Within Renfrewshire, the total housing floorspace is forecast to remain broadly static, whereas retail, office and industrial floorspace all reduce over the period to 2019 by around 3 – 4%.
- The Renfrewshire area is forecast to see an increase in public transport trips starts between 2014 and 2019 for both the am and pm peak periods of 5% and 4% respectively. Similarly there are increases in the trip ends within Renfrewshire in both peaks with the am peak increasing by 6% and the pm peak by 3.5%. Overall the balance of trips leaving Renfrewshire in the morning being greater than the inbound trips, with the reverse being the case in the evening.
- For car based trips the trend is similar to public transport travel with am peak person trip starts growing by 5% and pm by 3%. Car based person trip ends within Renfrewshire increase by 4.5 % in the am peak and 3% in the pm peak. The changes by actual vehicles trips are unsurprisingly very similar to the person trips by car. Western areas of Renfrewshire show little increase in trip making throughout the time periods by all modes of travel.
- The rates of growth are not uniform throughout the Council area with the higher levels of increased trip making concentrated mainly around the Paisley area. This applies to both public transport and car use. Increased car trips are also predicted around the northern parts of the Council area through Langbank, Bishopton and Erskine areas with higher increases in public transport use more prevalent in Erskine.
- The distribution of increases in trip starts and trip ends for both car and public transport modes throughout Renfrewshire are similar. Trip starts and trip ends increase across Renfrewshire, but the highest increases are in the most populated areas of Paisley and its immediate surroundings and in the areas around Erskine and Renfrew.
- In terms of the possible changes in emissions over the period 2014 – 2019, it is forecast that there will be a general reduction in Nitrogen Oxide, Carbon Dioxide and Particulate Matter 10 emissions with variations across the Council area related to the volumes and changes in vehicle trips. The higher reductions in emissions relate to the more densely populated locations and those with higher levels of car use. Inbuilt into the model is that it is expected that vehicle emissions of improving vehicle engine technology will result in both improved efficiency and reduced emissions over time.
- In terms of future development of the transport network, in line with their various transport strategies, it is anticipated that Renfrewshire Council, SPT and Transport Scotland together with their other transport partners will continue to develop public transport proposals, encourage sustainable travel and reduce dependency on car.

All of the geographical data output from the SITLUM model has been considered by Renfrewshire Council and used in the analysis of the spatial strategies for the MIR.

Transport implications of preferred strategies in the Main Issues Report

In preparing the Renfrewshire Main Issues Report and accompanying Environmental Report, the five main issue themes outlined above were considered in detail as to what would be the preferred and any alternative strategies in dealing with these issues. A key consideration was how the spatial strategies could achieve 'Sustainable Economic Growth' and support the LDP objectives.

The location of developments, transport and availability of infrastructure were a key consideration when devising strategies. The vision and strategy for the new LDP requires to be realistic and not rely on the requirement for additional infrastructure provision. Land use requirements require be located in close proximity to existing transport infrastructure and services which have the necessary capacity to accommodate the use. Furthermore development locations should also allow a range of travel choices, taking account of the transport mode hierarchy, promoting active travel such as walking and cycling and then public transport before the need to use the car.

The following sections outlines transport implications of each of the preferred strategies in the MIR.

Stimulating the Economy

Glasgow Airport Zone Preferred Strategy

- Support expansion of airport uses into the Netherton Farm area.
- Support operational and physical connectivity of the different business and industrial locations within the Airport Zone, to take advantage of the locational benefits afforded by the airport.
- Plan for and promote the Cart Corridor, Paisley Harbour and Murray Street areas as a location for airport related businesses and users.

Cart Corridor / Paisley Harbour / Murray Street Preferred Strategy

- Plan for and promote the Cart Corridor, Paisley Harbour and Murray Street areas as a location for airport related businesses and users.
- Support the connection of Inchinnan Road and Renfrew Road by a new crossing of the White Cart Water.
- Support the mixed use redevelopment of the Paisley Harbour area.
- Promote the development of Murray Street industrial area including an environmental improvement and marketing scheme

To support these preferred strategies, the focus is on established business and industrial areas such as areas around Glasgow Airport including Inchinnan, Linwood / Phoenix, Westway, with a zone of influence around areas such as the Cart Corridor, Paisley Harbour and the Murray Street area in Paisley. All of these areas have land and a built environment

that is an asset for economic and employment growth as well as having existing active travel and transport connections and the ability to connect to or a level of funding that is likely to be available for new or additional infrastructure.

NPF2 identifies Glasgow Airport as one of the 14 National Projects where the emphasis is on a partnership approach to improving surface transport access to/from the airport. Renfrewshire Council is committed to a partnership approach and by having specific economic zones within the new LDP, this should help set a framework for continued co-ordinated working.

Hillington SEIL Preferred Strategy

- Develop an industrial and trade use policy for the Hillington Road area.
- Apply strong policy control to preserve the remainder of Hillington for industrial uses only.

At Hillington / Renfrew North it is considered that infrastructure is in place or is capable of being provided to support the development. The preferred strategy aims to direct businesses to locate in an area already served by an established transport network with good connections as well as the prospect of potential new transport modes such as Fastlink as well as other transport interventions that are contained in the STPR. Intervention 24 and 26 of the STPR includes rail enhancements which is likely to have a positive effect on Hillington West and Gilmour Street Station increasing connectivity in and around Hillington and Paisley.

Erskine Riverside Industrial Land Preferred Strategy

- Land at Kilpatrick Drive, to the south east of Barholm roundabout, to be a mixed use area with Class 4 business uses and Class 11 leisure uses accepted.
- Available land to the north of Barholm roundabout to remain as business and industrial land.
- Removal of industrial land adjacent to town centre and change land use of zoning to green space linked to Green Network.

Erskine Riverside is an existing industrial and business area with good links to the strategic network as well as a high frequency bus route. The concentration of a new mix of uses in this area is proposed as well as proposals to enhance existing active travel routes with the change of industrial land to open space contributing to the green network. It is considered that the implementation of this preferred strategy is unlikely to require new transportation interventions given the existing transport connections and available infrastructure already in place.

Waste Management Facility Preferred Strategy

- In general the Council considers that land identified for industrial use is the most appropriate for a waste management facility.
- Land previously licensed for waste management purposes may also be appropriate.
- The LDP will set out a number of tests for the assessment of any planning application for such a facility based upon environmental impact, proximity to potentially conflicting use, site access and traffic and potential to provide a local energy source.

The preferred strategy for potential waste management facilities is to find sustainable locations, allowing for the use of existing infrastructure and therefore being able to be implemented developments within the timeframe of the LDP without the need for substantial transport interventions. Identifying existing industrial areas as being the most appropriate locations for this use is the preferred option as it is considered that these sites have good existing access to the strategic road network with some sites also having access to the rail network. Therefore the need for interventions is likely to be minimal. Detailed transport assessments will be considered should sites come forward as part of the preparation of the LDP.

Local Industrial Sites Preferred Strategy

- To use the LDP as the means of reviewing the continuing relevance of industrial land allocations. In this way particular sites can be identified that could be appropriate for new uses.
- There are existing sites zoned in the current Renfrewshire Local Plan for industrial use which may no longer be appropriate. These sites will be identified in the LDP as Industrial Transition Zones and be subject to policy tests on impacts on residential amenity, retail impacts, traffic impact and environmental considerations.

The sites that have been identified as being within Industrial Transition Zones are all within established built up areas. These areas are mixed and most have either good public transport links or good connections to the strategic or the local road network or both. Existing infrastructure would be able to be used and development may regenerate areas leading to a more sustainable mix of uses. Most of the sites identified are small and therefore unlikely to require the need for any transport interventions.

Housing

Housing Preferred Strategy

- Estimated private housing land supply target 745 units to 2020 and 540 units to 2023 with an affordable housing land supply target 150 (HNDA/LHS)

In terms of housing, the sites identified to make up the housing land supply target of 745 units to 2020 and 540 units to 2023 are primarily concentrated on brownfield sites or sites on the edge of existing centres and settlements. Many of the sites will support the delivery of sustainable development as they have adequate infrastructure already in place or there is potential for connection without significant infrastructure costs.

The proximity to existing active travel and public transport routes along with the frequency and availability of services were part of the analysis of each of the potential housing sites put forward for consideration in the new Renfrewshire LDP. It is considered that for the majority of sites there is no requirement for substantial transport interventions.

For larger housing sites such as the Bishopton and South West Johnstone Community Growth areas, it is considered that both have good access to existing public transport networks. At Bishopton, as part of the redevelopment of the former Royal Ordnance Factory, station enhancements, park and ride proposals, a new motorway junction along with the implementation of a bus service should provide access to sustainable modes of travel. At South West Johnstone, there may be opportunities for additional stops at Milliken Park Station through the STPR Intervention 24 and 26, with possible enhancements such as kiss and ride facilities at the station.

Two other large housing sites which have been included as potential new housing sites, is land at the former Merchiston Hospital on the edge of Brookfield and the existing industrial area at Christie's yard just off Ferry Road and Kings Inch Road in Renfrew. Both these sites will require detailed transport assessments to examine the potential impact to the strategic road network. Layouts and potential number of units have still to be established at these sites. If these sites are taken forward to the Proposed Plan, an initial assessment of the impact to the strategic road network will be requested. In the preferred strategy there are no other significant potential housing sites or a number of housing sites that if brought forward would have a significant cumulative impact.

Regenerating Town Centres

Braehead Preferred Strategy

To designate Braehead as a town centre and support the expansion of the centre to include:

- Expansion of retail floorspace
- Development of new arena/hotel complex
- Development of new public square/event space
- New bus/public transport interchange
- Provision of new decked car parks
- New walking/cycling links to Renfrew

Although Braehead already offers a diverse range of services and facilities and fulfils a range of functions, to establish Braehead as a town centre there is a need for further diversification of the centre's role and function. A masterplan approach is proposed to develop the essential elements required for a town centre which will involve an expansion at the site. The transport implications related to Braehead's expansion has gone through an initial analysis which has indicated that there will be an increase in vehicle trips to and from the site. Although, it is not likely that this increase in traffic generation will be significant because as part of the proposals for expansion there is also a number of active travel and public transport interventions proposed. These new proposals will help in creating a modal

shift with a range and choice of modes provided to access Braehead. A further transportation assessment will be required as details develop, in particular regarding the proposed size of extension, the type of transport interventions and the phasing of the development.

Paisley Town Centre Preferred Strategy

- Deliver the town centre strategy outlined above with alterations to the existing Town Centre boundary to include a number of core town centre uses. The University Area, key built heritage assets and the existing civic core would be identified within the town centre.
- Identify a Core Retail Area, centred on the High Street, to be the focus of retail activity within the town centre with non retail uses at ground floor level being resisted.
- Support the redevelopment of the former Arnott's site on Gauze Street as a retail opportunity within the town centre.
- Alternative non retail town centre uses would be promoted out with the Core Retail Area. Support improvements in the connectivity between the town centre and key assets and new developments at the edge of the centre.

Johnstone Town Centre Preferred Strategy

- Development of a new Town Hall and Civic Hub
- Support town centre public realm improvements. This will include:
 - Enhancing key gateways into the town centre;
 - Defining key landmarks and creating a sense of place;
 - Improving pedestrian access to the town centre, and new civic 'core';
 - Public realm improvements at Church Street, MacDowall Street and Provost Close;
 - Commercial property improvements to building frontages on High Street.
- Promote and plan for a greater mix of uses to enhance the vitality and viability of the town centre. Promote the development of key opportunity sites in and in close proximity to the town centre.

Erskine Preferred Strategy

- Safeguard and enhance the existing green network, improving connectivity between the town centre, waterfront and residential neighbourhoods as a catalyst for the development of key opportunity sites within and in close proximity to the town centre.
- Promote new commercial and leisure opportunities to the north of the town centre in support of its vitality and viability.
- Promote the development of key local authority owned site at the edge of the town centre for residential use.

All of the above town centre strategies prioritise existing retail centres such as Paisley and Braehead along with a focus on Erskine and Johnstone Town Centres. Again in terms of minimising the impact of spatial strategies on the existing network and encouraging development in locations where there is the availability of sustainable modes of travel and transport, all of these areas have access to a range of transport modes with good connections. Furthermore transport investment, both public and private is being concentrated in these areas, therefore it make sense to highlight these as a preferred option.

Environment

Green Network Preferred Strategy

The focus of the LDP will be on the following areas where there are opportunities to integrate green networks:

- Erskine Waterfront and Centre;
- Renfrew Waterfront and Braehead;
- South west Renfrew and Gallowhill;
- Johnstone to Lochwinnoch
- South Paisley to Johnstone
- River Clyde and River Cart walkways, including linkages to Core Paths and the National Cycle Route

The areas that the green network preferred strategy is based on are primarily areas where investment in development is likely to occur within the lifetime of the new development plan. Therefore although all of the routes identified will require infrastructure upgrades along with the installation of new infrastructure to provide a better connected green network and join Renfrewshire's towns and villages to the active travel network, there is likely to be a level of resources available to allow this to be implemented.

Vacant and Derelict Land Preferred Strategy

Seek to stimulate new uses for vacant and derelict industrial land by using the LDP as the means of reviewing the continuing relevance of land use policies.

In the short term explore opportunities for temporary greening of vacant sites for the amenity and environmental benefits that this would bring.

The impact of the vacant and derelict land preferred strategy on the existing transport network will be minimal. The strategy is to use existing land and enhance it by either improving the natural environment or being more flexible and promoting existing land zoned for industrial for another use. For most of the existing vacant and derelict sites that may fall into this category, these are sites within existing built up, mainly urban areas which are already supported by an established transport network. At this moment in time there is uncertainty on what particular sites may be identified and taken forward to the Proposed Plan stage, however each site will require to be assessed in terms of its impact on both the strategic and local network.

Transport

Transport Preferred Strategy

Promote accessible sites on or near public transport nodes and corridors within or on the edge of existing settlements.

Guide new development to locations:

- that are linked to active travel networks and served by public transport as well as being connected to existing local services and facilities; and
- where existing transport and travel infrastructure and services have the necessary capacity to fully accommodate the use.

Reflect current transport plans and current transport investment programmes. In particular the interventions outlined in the STPR along with the actions outline in the Regional Transport Strategy and Renfrewshire's Local Transport Strategy.

The preferred strategy for transport aims to comply with existing planning and transport policies and strategies. The role of the new Renfrewshire LDP will be to locate new development in locations which reduces the demand for travel and also enables travel demands to be met by a choice of sustainable travel modes.

It is considered that each of the preferred strategies outlined in the MIR reflect this transport objective and in the proposed plan there will be policies which will reflect the aim of establishing the most sustainable combination of land use and transport planning.

Requirement for Interventions

The SITLUM model forecast outputs have shown that there will be locations where transport interventions will be required to mitigate the effects of implementing the preferred strategies. Depending on the outcome of the MIR consultation, should preferred strategies such as the Glasgow Airport Zone, Braehead expansion and other larger housing developments at Renfrew North and Brookfield be supported, then further detailed transport appraisal will be required to highlight the potential impact to the strategic transport network.

With regards to Glasgow Airport, the recent Glasgow Airport Strategic Transport Network Study undertaken by MVA Consultancy on behalf of BAA provides a comprehensive analysis of the strategic transport network in and around Glasgow Airport highlighting the problems, issues, constraints and opportunities. Along with the forecasted increased passenger numbers to Glasgow Airport, the additional demand generated by traffic growth and other land-use developments such as the Glasgow Airport Strategic Economic Investment Location including expansion at Westway, Inchinnan, Linwood and the Cart Corridor, all in the vicinity of the airport, there is a need to consider how this can be accommodated on an already constrained network.

Given that the potential solutions to identified issues on the existing strategic transport network must be considered in the wider context, it is considered that collaborative working with all relevant land use, planning and transport bodies must continue and Renfrewshire Council would support the recommendations made in the Glasgow Airport Strategic

Transport Network Study for an option generation and sifting exercise to ensure that the transport intervention options reflect the wider strategic picture for the area.

In terms of the potential expansion to Braehead, an initial Braehead, Future Masterplan Traffic Generation Assessment has been undertaken by Dougall Baillie Associates on behalf of Capital Shopping Centres which outlines a potential expansion of around 41,000 square metres of retail floorspace, 6,000 square metres of restaurant space and 4,000 square metres of leisure/entertainment (all net gains).

In summary, this initial assessment for Braehead suggests that as an extension to an existing facility does not function in the same way as a new stand alone facility of an equivalent size and therefore the impact in terms of traffic generation is likely to be less. An expansion is more likely to increase the time that people spend in the facility rather than an increase in visitor numbers. The assessment indicates that the additional restaurant floor space will be complementary to the proposed retail space and therefore is unlikely to generate a significant level of dedicated vehicle trips. Therefore the new trip generation associated with this expansion would only be a result of the proposed retail and entertainment venue. Applying this principle it is estimated that the increase in visitors to Braehead is likely to be around 14.5%. This is suggested to be the high end scenario given that this initial assessment does not reflect the potential improvements to public transport facilities, which includes the repositioning of the public transport hub, the safeguarding of land for Fastlink and a possible new rail link spur and rail halt at Braehead. Furthermore this increase does not take into account the spreading of new trips throughout the day at non-peak times as well as peak times. The assessment indicates that the vehicle trip distribution pattern is unlikely to be significantly different however a potential increase of 14.5% is likely to have an impact on both the strategic and local road network and therefore further analysis will require to be undertaken as part of a wider transportation assessment as proposals develop.

Conclusion

Further transport assessment and transport modelling work will be undertaken on which will inform the choice and combinations of land use allocations at the Proposed Plan stage. At this point there will also be further consideration of the potential infrastructure interventions that will be required should development occur.