

Detailed Appraisal		E5 – New Busway between Glasgow City Centre, Clydebank and Glasgow Airport						
Estimated total Public Sector Funding Requirement:		<i>Capital Costs/grant</i> <i>Annual Revenue Support Present</i> <i>Value of Cost to Gvt</i> <i>BCR/PVB</i>				£100m - £250m - £50m - £150m < 0.75 / £10m - £50m		
Summary Impact on STAG Criteria	Environment Safety Economy Integration Accessibility and Social Inclusion	- - -	- -	-	0	+	++	+++
(Judgement based on available information against a 7pt. scale.)								
Intervention Description:								
This intervention supports the objective to directly connect areas of economic activity and provide links to Glasgow Airport.								
It would provide a busway system along the River Clyde corridor, connecting to the Clyde Fastlink scheme and continuing west to serve Clydebank, Renfrew and Glasgow Airport. The system would generally run on a segregated alignment although some on-street operation is likely to be required at key pinch points on the route.								
Summary: Rationale for Not Recommending								
The introduction of a busway along the River Clyde corridor, west of the city centre, would link areas of economic activity with the urban network and would bring local benefits, but not of a scale that could be considered nationally significant.								
The reduction in emissions would be limited, both in terms of scale of impact and the area of impact within the urban network.								
The intervention relies on connectivity in the city centre, which is likely to result in additional trips to connection points, such as Glasgow Central Station. This would exacerbate an existing problem. It does not contribute effectively to resolving the issues with cross-Glasgow trips.								
This intervention largely impacts at a local and regional level and does not contribute as effectively as other interventions such as D25 (West of Scotland Strategic Rail Enhancements). It is also noted that the Glasgow Airport Rail Link will provide a high frequency public transport service between the airport and Central Station, which would reduce the business case for connecting this intervention to the airport.								

Table E5.1.1 STPR Objectives

STPR Objectives	
<p><b>STPR Objective 1:</b> To increase the public transport access to and between areas of economic activity and regeneration with minimal need for interchange.</p> <p><b>STPR Objective 2:</b> To improve the efficiency of the M8 motorway during periods of peak demand with a focus on reducing the conflict between longer distance and local traffic, increasing the people carrying capacity and freight carrying capacity of existing road, and demand management.</p> <p><b>STPR Objective 3:</b> To address rail capacity and connectivity issues in central Glasgow.</p> <p><b>STPR Objective 4:</b> To promote continuing reduction in accident rates and severity rates across the strategic transport network.</p> <p><b>STPR Objective 5:</b> To promote journey time reductions, particularly by public transport, between the Central Belt and Aberdeen/Inverness primarily to allow business to achieve an effective working day when traveling between these centres.</p> <p><b>STPR Objective 6:</b> To promote efficient and effective transport links to support the development and implementation of the proposed national development at Glasgow Airport identified in the NPF2.</p>	<p><b>1: Positive</b> – This intervention could result in reduced journey times for bus users travelling to and from the city centre and the surrounding areas of economic activity and regeneration areas. There would be no effect on strategic trips that currently require interchange.</p> <p><b>2: Neutral</b> – This intervention may remove some local trips on the M8 as it would provide improved services along the Clyde corridor, however, the impact would be marginal.</p> <p><b>3: Slightly Positive</b> – This intervention would not increase the capacity of rail services, however, it could result in some modal shift to the bus, thus freeing up some capacity on rail services in the city. It may result in improved connectivity within central Glasgow as it would provide increased public transport services to and from the city centre; however, the additional trips to connection points such as Central Station may add to existing problems of congestion in these areas.</p> <p><b>4: Neutral</b> – This intervention may have a slightly positive impact on road safety in the corridor, as the dedicated roadways and possible modal shift from car to public transport, could result in a slight improvement to safety. However, impact would be marginal.</p> <p><b>5: Neutral</b> – This intervention would not have an impact on the strategic linkage between Aberdeen/Inverness and the Central Belt.</p> <p><b>6: Positive</b> – This intervention would improve accessibility along the Clyde corridor and provide general improvements between the city centre and the airport.</p>

Table E5.1.2 STAG Criteria

STAG Criteria		
Criteria:	Assessment Summary:	Supporting Information:
Environment:	Neutral	There is the potential for benefits, as the intervention would introduce a new public transport link, improving accessibility and community linkages across Glasgow resulting in a degree of modal shift. The new vehicles would also use cleaner fuel technology. However, these benefits would be limited.
Safety:	Neutral	The services would run mainly on segregated busways, removing conflict with other traffic and pedestrians. The busway would provide up to date facilities to improve the safety and security of passengers. However, the overall impact on safety would be marginal.
Economy:	Minor Negative Impact	<p><b>Transport Economic Efficiency (TEE):</b> The segregated busways would provide improved journey times for existing public transport users and car users who transfer to the new services, resulting in marginal benefits. However, the present value of costs of between £50m and £100m compared to the present value of benefits indicates a poor economic performance with a benefit to cost ratio of &lt;0.75.</p> <p><b>Wider Economic Benefits (WEBs):</b> Improved connectivity would enhance the overall efficiency of the network. However, as the impacts of this intervention would predominantly be felt at a local level, this intervention would have a negligible impact on the labour catchment areas for Glasgow.</p> <p><b>Economic Activity and Location Impacts (EALIs):</b> The intervention would generate a positive impact by linking the city centre with key regeneration areas along the River Clyde and with growing employment areas around Glasgow Airport. Overall, the development of a more integrated, efficient transport system within Glasgow could help make the area more attractive to inward investors.</p>
Integration:	Moderate Benefit	<p><b>Transport Integration:</b> This intervention could be integrated with existing public transport at several locations including Glasgow Central, Partick Interchange, Braehead and Glasgow Airport. The fast, frequent, high quality service would link areas of economic activity with the urban network, and support the development of key sites such as the Southern General Hospital and Glasgow Airport.</p> <p><b>Transport and Land Use Integration:</b> This intervention supports the development of the Glasgow Harbour, Clyde Waterfront and Braehead areas, providing direct links between these areas and Glasgow City Centre. This intervention also supports the development of the Southern General Hospital and Glasgow Airport.</p> <p><b>Policy Integration:</b> The Glasgow City Council City Plan, 2003, established the context for the development of Fastlink.</p>
Accessibility and Social Inclusion:	Moderate Benefit	<p><b>Community Accessibility:</b> This intervention may increase public transport network coverage with increased links between Glasgow City Centre, the Clyde Waterfront area, Clydebanks, Renfrew and Glasgow Airport. It would also include provisions for walking and cycling, to improve local accessibility.</p> <p><b>Comparative Accessibility:</b> The intervention may have the greatest impact on the regeneration areas to the north of the River Clyde.</p>

Table E5.1.3 Key Strategic Outcomes

Key Strategic Outcomes (KSO's)		
Objective:	Assessment Summary:	Supporting Information:
<b>Improve Journey Times and Connections:</b>	<b>Moderate Benefit</b>	The segregated busways would improve journey times for existing bus users and those transferring from car to services on the new facility. Connections may be improved as busways could provide quicker access to and from the city centre and provide interchange at several locations including Glasgow Central, Partick Interchange, Braehead and Glasgow Airport. This service would, however, impact on existing congestion around Central Station.
<b>Reduce Emissions:</b>	<b>Neutral</b>	The busway is not envisaged to encourage a substantial amount of modal shift from cars to buses along these routes and therefore this is assessed as neutral. The vehicles would use cleaner fuel technology.
<b>Improve Quality, Accessibility and Affordability:</b>	<b>Moderate Benefit</b>	This intervention may improve accessibility to areas including the city centre, the Southern General Hospital, Braehead Shopping Centre and Glasgow Airport with reduced journey times and key stops on the route, but the Glasgow Airport Rail Link (GARL) would provide a faster service between the city centre and the airport. The service would be of a higher quality than existing bus services.

Table E5.1.4 Scottish Government's Strategic Objectives

Scottish Government's Strategic Objectives		
Objective:	Assessment Summary:	Supporting Information:
<b>Safer and Stronger:</b>	<b>Moderate Benefit</b>	This intervention could provide a quality public transport service that would be accessible from the main settlements and development areas on the north bank of the River Clyde and across the river to Renfrew and Glasgow Airport. Integration with existing public transport services would also be provided at several locations including Glasgow Central, Partick Interchange, Braehead and Glasgow Airport. It would not affect the affordability of public transport.
<b>Smarter:</b>	<b>Minor Benefit</b>	This intervention could increase access to schools, colleges and universities.
<b>Wealthier and Fairer:</b>	<b>Moderate Benefit</b>	This intervention would provide a public transport service with faster and more reliable journey times and improved connections to and from the city centre and the regeneration areas to the north of the River Clyde thus improving productivity. It would also link into Glasgow Airport; however, GARL would provide a faster journey between the city centre and the airport.
<b>Greener:</b>	<b>Neutral</b>	The intervention could result in some modal shift to bus with improvements to air quality and reduced carbon emissions. It also promotes the use of sustainable transport and the intervention uses cleaner fuel technologies. The overall benefits however, would be limited
<b>Healthier:</b>	<b>Moderate Benefit</b>	This intervention may encourage modal shift from the car to public transport by providing a fast, frequent, high quality service. It could provide increased opportunities for public transport access to the Southern General Hospital.

Table E5.1.5 Implementability Appraisal

Implementability Appraisal	
<b>Technical:</b>	It is considered that there are no untried techniques that would be required during the implementation of this intervention. However, some issues may arise during the design stage due to the proximity of the Rivers Clyde and Kelvin. There may be some disruption to pedestrians and other road users during the construction of this intervention however, this could be mitigated against to minimise the impact.
<b>Operational:</b>	No adverse factors would impact on the operation of the intervention during its projected life. Operation and maintenance of the infrastructure could be the responsibility of the local authorities or the operator.
<b>Public:</b>	This intervention has been in the public domain for some time and would form part of the regeneration of the Clyde Waterfront area.