

Detailed Appraisal		E16: Extension of Glasgow Southern Orbital from East Kilbride to M73/M74						
Estimated total Public Sector Funding Requirement:		<i>Capital Costs/grant</i>		£250m - £500m				
		<i>Annual Revenue Support Present</i>		-				
		<i>Value of Cost to Gvt</i>		£100m - £250m				
		<i>BCR/PVB</i>		1.75 – 2.25 / £250m - £500m				
Summary Impact on STAG Criteria	Environment	---	--	-	0	+	++	+++
	Safety							
	Economy							
	Integration							
	Accessibility and Social Inclusion							
(Judgement based on available information against a 7pt. scale.)								
<b>Intervention Description:</b>								
This intervention supports the objectives to improve the efficiency of the M8 in Glasgow. It would provide a new dual carriageway link between the current eastern end of the Glasgow Southern Orbital at East Kilbride with the M73/M74 junction at Maryville. Intermediate junctions would be provided with the A749 (East Kilbride to Glasgow) and the A724 (Hamilton to Rutherglen).								

Summary: Rationale for Not Recommending	
This intervention duplicates much of the provision and has the potential to undermine the benefits being brought forward under the M74 extension project.	
This intervention would require substantial new land take from the urban fringe. There are likely to be adverse effects on cultural heritage resources, the water environment and air quality. There are also likely to be adverse effects on local biodiversity, local landscape and visual setting and local noise levels. It is considered that the potentially substantial adverse environmental impacts outweigh the benefits of this intervention.	

Table E16.1.1 STPR Objectives

STPR Objectives	
<p><u>STPR Objective 18.1:</u></p> <p>To make best use of the available road space and better manage peak demand taking into account the need to contribute to emissions reduction.</p> <p><u>STPR Objective 18.2:</u></p> <p>To contribute to emissions reduction by facilitating an increase in the proportion of freight passing through the corridor that is carried by rail.</p> <p><u>STPR Objective 18.3:</u></p> <p>To promote continuing reduction in accident rates and severity rates across the strategic transport network.</p>	<p><b>18.1: Negative</b> – This intervention proposes new road space and therefore does not seek to make better use of the existing network. It would also, to some extent, duplicate provisions from the M74 extension.</p> <p><b>18.2: Slightly Negative</b> – The construction of a new road would have a negative impact on the competitiveness of rail freight. This could then result in increased road vehicle emissions which could have an adverse impact on local air quality and contribute to an increase in overall CO<sub>2</sub>e emissions.</p> <p><b>18.3: Neutral</b> – The extension of the GSO would remove some strategic through trips from East Kilbride town centre, which would reduce the conflict between strategic and local trips and between vehicles and pedestrians resulting in improved accident rates on the local network. However, the route could increase car use in the area, thus potentially increasing the number of road accidents on the strategic network. Overall the impact on accident rates and severity rates is considered neutral.</p>

Table E16.1.2 STAG Criteria

STAG Criteria		
Criteria:	Assessment Summary:	Supporting Information:
<b>Environment:</b>	<b>Minor/Moderate Negative Impact</b>	This intervention would require substantial new land-take from the urban fringe, with potential for minor adverse effects on locally important natural resources such as landscape, biodiversity, geology and the water environment. There is potential for substantial effects on cultural heritage resources, with a number of nationally designated sites that could fall within the footprint of, or close to, the new road, although the scale and nature of effects remains uncertain at this stage, as the exact route of the road has not been defined. In addition, the road would introduce a new noise source to local receptors, and potentially increase emissions to air.
<b>Safety:</b>	<b>Neutral</b>	The extension of the GSO would remove some strategic through trips from East Kilbride town centre, which would reduce the conflict between strategic and local trips and between vehicles and pedestrians resulting in improved accident rates. However the route could increase car use in the area, with the potential negative impact on the number of road accidents.
<b>Economy:</b>	<b>Minor Benefit</b>	<p><b>Transport Economic Efficiency (TEE):</b> The provision of a new road link between East Kilbride and the M73/M74 would result in travel time savings and vehicle operating cost benefits for freight traffic, particularly during peak hours.</p> <p><b>Wider Economic Benefits (WEBs):</b> The provision of a new road link would provide the capacity for increased and more reliable movement of goods to and from Ayrshire and southern parts of Glasgow. Journey times for freight vehicles would be reduced, resulting in increased productivity.</p> <p><b>Economic Activity and Location Impacts (EALIs):</b> The new road link would improve access to the M73/M74 and would act as a 'building block' in the continuing competitiveness of the west of Scotland as a strategic investment location for manufacturing.</p>

<b>Integration:</b>	<b>Neutral</b>	<p><b>Transport Integration:</b> This intervention would have no significant impact on enhancing transport integration.</p> <p><b>Transport and Land Use Integration:</b> Land use integration would depend on the final alignment of the route; however it is considered that the benefits would occur at a local level in East Kilbride, rather than at a strategic level.</p> <p><b>Policy Integration:</b> This intervention would not affect policies relating to disability, health services, rural affairs or social inclusion, as it does not include measures to encourage modal shift from car, to assist in achieving a healthy and inclusive society.</p>
<b>Accessibility and Social Inclusion:</b>	<b>Neutral</b>	<p><b>Community Accessibility:</b> This intervention would not have any effect on community accessibility as it does not improve public transport network coverage nor does it promote non-motorised trips to access local services.</p> <p><b>Comparative Accessibility:</b> This intervention would primarily benefit road transport, by improving road access to parts of Glasgow and Ayrshire from the M73/M74.</p>

Table E16.1.3 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 provision of a new road link between the GSO and M73/M74 would improve road access to parts of Glasgow and Ayrshire from the M73/M74, although to some extent this would be provided by the M74 Extension. Journey time reliability would also improve.
<b>Reduce Emissions:</b>	<b>Minor Negative Impact</b>	The new road could reduce congestion through East Kilbride leading to a reduction in CO <sub>2</sub> e emissions. However, the intervention is forecast to increase in both vehicle speed and traffic levels overall and therefore transport related emissions.
<b>Improve Quality, Accessibility and Affordability:</b>	<b>Neutral</b>	This intervention would improve journey time reliability and hence the quality of journeys, mainly for cars. Access to parts of Glasgow and Ayrshire would also be improved for road users. This intervention would not impact on affordability.

Table E16.1.4 Scottish Government's Strategic Objectives

Scottish Government's Strategic Objectives		
Objective:	Assessment Summary:	Supporting Information:
<b>Safer and Stronger:</b>	<b>Minor Benefit</b>	This intervention could result in reduced accidents due to traffic transferring from East Kilbride town centre routes to the bypass, reducing the conflict with local vehicles, pedestrians and cyclists. A reduction of vehicles in the town centre could also result in a safer environment within East Kilbride resulting in a better quality of life. An overall increase in car use, due to the improvements could lead to an increase in accidents on the strategic network, thus negating the accident reductions on the local network. This intervention would not affect the quality, accessibility and affordability of public transport.
<b>Smarter:</b>	<b>Neutral</b>	This intervention would have no impact on access to schools, colleges and universities for those living along the relative corridor.
<b>Wealthier and Fairer:</b>	<b>Moderate Benefit</b>	The new road link could increase productivity by reducing the time spent on the road by passengers and freight. This intervention would assist in the continuing competitiveness of the west of Scotland, as a strategic investment location particularly for manufacturing.
<b>Greener:</b>	<b>Minor Negative Impact</b>	This intervention would have a minor negative impact on air quality and CO2e emissions. The intervention would also not encourage modal shift from car to public transport.
<b>Healthier:</b>	<b>Neutral</b>	The new road link would not affect access to health services, nor encourage modal shift and the associated health benefits.

Table E16.1.5 Implementability Appraisal

Implementability Appraisal	
<b>Technical:</b>	There are a number of technical issues associated with this intervention. The new road link may have to cross existing railway routes. There are also two golf courses adjacent to the proposed route. During construction, the new road link may require existing rail routes to close for a period of time and it may also affect other road users on the M73 and M74.
<b>Operational:</b>	This intervention is considered to be operationally feasible and it is unlikely that any adverse factors would affect the operation of this intervention during its projected life.  The operation of the route is likely to become the responsibility of Transport Scotland and its maintenance contractor.
<b>Public:</b>	This intervention has been made public. It is likely that this intervention would have local support at a local level; however the adverse environmental impacts may attract objections on a regional/national level.