

<b>Proposal Details</b>			
Proposal Name:	Longman Option 4		
Proposal Description:	A grade separated junction arrangement with dumbbell roundabouts. The southbound merge and diverge slip roads would form a loop to eliminate the key traffic conflict (A9 Southbound to A82 westbound and A82 eastbound to A9 southbound).	Estimated Total Public Sector Funding Requirement:	Capital costs/grant £20 million (2012 prices excluding VAT)
<b>Background Information</b>			
Geographic Context:	<p>The A96 is a strategic trunk road which connects Inverness to Aberdeen, and the A9 is a strategic trunk road between the Central Belt and Northern Scotland. The A96 is single carriageway as it approaches Inverness but becomes a dual carriageway on approach to the Inverness Retail Park roundabout. The A9 on approach to and around Inverness is dual carriageway.</p> <p>Longman Junction is an at-grade roundabout to the North of Inverness on the A9 which connects the A9 to the A82 and Stadium Road. It is often subject to congestion as commuters from the North and East of Inverness, via the Kessock Bridge and the A96 make their way to/from Inverness city centre.</p> <p>The A9 is subject to the national speed limit, as is the A82 until approximately 100m from the junction. Stadium Road has a speed limit of 30mph</p>		
Social Context:	<p>Longman junction is surrounded by Longman industrial Estate. There are no residential properties nearby. To the North of Longman Junction, on Stadium Road, is Inverness Caledonian Thistle football stadium. Longman is an important junction for commuters travelling across the Kessock Bridge to Inverness. The option is located within the boundary of the Inverness Central, Raigmore and Longman datazone that is ranked in the most deprived 15% of the SIMD (2012).</p>		
Economic Context:	<p>Both the A9 and A96 are of strategic and local economic importance. Longman junction is the main junction for traffic travelling to/from the Kessock Bridge and Inverness city centre and at the same time is of importance to long distance traffic between the North of the country and the central belt. Therefore any changes to the operation of Longman are likely to have an economic impact on the surrounding area and possibly further afield.</p>		

<b>Planning Objectives</b>	
<b>Objective:</b>	<b>Performance against planning objective:</b>
L1: Improve journey time and increase opportunities to travel, particularly by public transport, between Aberdeen and Inverness.	<p><b>L.1 – Minor Benefit</b></p> <p>Traffic modelling of this option showed that journey times between the A96 East of Smithton and the A82 via Longman Junction were reduced by 21% in the AM peak and 16% in the PM peak. In the opposite direction there are more modest journey time savings during the AM peak (2%) and a marginal increase in journey times during the PM peak (4%). For trips travelling via Raigmore Interchange from the A96 to the city centre this option has minimal impact in terms of improved journey times, and therefore minimal impact on the majority of public transport services between Aberdeen and Inverness.</p>
L2.1: Improve the effectiveness of the road network hierarchy in addressing the conflict between longer distance and local traffic through rationalisation of local movements' use of Trunk Road junctions	<p><b>L.2.1 – Moderate Benefit</b></p> <p>The road network hierarchy will be enhanced and re-enforced through the provision of the grade separated junction, which will separate longer distance A9 traffic from local traffic accessing Inverness via the A82 and Stadium Road.</p> <p>Currently there are significant delays for traffic turning onto the A82 from the Kessock Bridge and from the A9 South. By grade separating the junction, the conflict between longer distance and local traffic is reduced and traffic on the A9 is able to pass through the junction unimpeded benefiting from an improvement in journey times.</p>
L2.2: Reduce conflicts for longer distance and local traffic for planned development areas to the east.	<p><b>L.2.2 – Minor Benefit</b></p> <p>Introduction of the grade separated junction at Longman reduces the interaction between longer distance strategic traffic and local traffic. Journey times from the A96 and the A9 Kessock Bridge are reduced by 27% in the AM peak and by 23% in the PM peak indicating that longer distance movements may benefit from the option.</p>
L3: Improve connectivity, particularly by public transport and active travel, between Inverness city centre and the growth area to the east	<p><b>L.3 - Neutral</b></p> <p>This option would not directly impact on this objective, although the option would facilitate potential future connectivity improvements for public transport and non-motorised users.</p>

including Inverness Airport	
L4: Improve safety for motorised and non-motorised users by reducing the accident rate at Trunk Road junctions	<p><b>L.4 – Moderate Benefit</b></p> <p>This option reduces the level of conflicting traffic travelling through the new Longman Junction by separating the A9 through traffic from the traffic accessing Inverness. The new grade separated junction will be built to modern standards and so should improve safety and reduce accident rates compared to the existing junctions. This option would provide a safer facility for non-motorised users by removing a significant level of traffic from the junction, and would allow for the provision of additional traffic control measures such as signal control to further reduce exposure to conflicting traffic movements.</p>
L5.1: Improve the operational performance of the Trunk road network and junctions on the A9 and A96 as they approach Inverness from the Kessock Bridge; south of Inshes and the Smithton Roundabout.	<p><b>L5.1 – Moderate Benefit</b></p> <p>This option will improve the operational performance of the A9 Longman Junction by separating traffic on the A9 from local movements into Inverness that currently causes delay, especially in the peak periods. Modelling indicates that there are moderate journey time savings for vehicles travelling between the A9 Kessock Bridge and the A9 South; 13% in the AM and 10% in the PM, and significant journey time savings when travelling north on the A9, from South of Milton of Leys to the Kessock Bridge, 43% in the AM and 26% in the PM. Similarly there are journey time savings for local movements between the A9, the A82 and Stadium Road, with reductions between 5% and 30%.</p>
L5.2 Improve the operational performance of the secondary network and junctions where this may improve the operation of the Trunk road network	<p><b>L5.2 – Minor Benefit</b></p> <p>Modelling has shown a reduction in traffic on the local roads suggesting a transfer of traffic away from Harbour Road and Milburn Road, and onto the A82 Longman Road and the A9 in this option. The operational improvements this option provides at the trunk road junction will result in an additional benefit by improving the operation of the secondary road network.</p>
<b>Implementability Appraisal</b>	
Technical:	<p>The new grade separated Junction at Longman would be implemented using proven methods and technology. Disruption during construction is likely and significant temporary works and traffic management would be required in order to mitigate the impact.</p> <p>There are significant utilities in the vicinity of Longman junction, in particular a high pressure gas main and an Inverness – Lossiemouth fuel pipeline in the verges of the A9. Each would require protection or diversion as part of this proposal.</p>

Operational:	There are no factors which might adversely affect the ability to operate the proposal over its projected life without major additional costs.	
Financial:	The implementation of this option would be subject to available funding being confirmed, whether that be from the Scottish Government, Developers or The Highland Council.	
Public:	Grade separation of Longman junction is not in the public domain. While it may be acceptable in the wider community, opposition from local residents and landowners is possible. This proposal would require land acquisition beyond the current road boundary.	
<b>STAG Criteria</b>		
<b>Criterion</b>	<b>Assessment Summary</b>	<b>Supporting Information</b>
Environment:  <i>Note – all STAG ratings for individual assessment areas are expressed without mitigation.</i>  <i>Overall STAG Rating – Moderate Impact</i>	Global and Local Air Quality – No Benefit or Impact	This is mainly an industrial area, with only a few residential dwellings mainly located near to the Caledonian Thistle football ground, with some to the south of the option near the Raigmore roundabout. During operation there is likely to be no benefit or impact to residents as although traffic decreases on Stadium Road, the dumbbell roundabout configuration moves traffic closer to the receptors near Stadium Road.
	Cultural Heritage - No Benefit or Impact.	There are no impacts on known cultural heritage assets and there is limited potential for the presence of unknown archaeological remains.
	Noise & Vibration – No Benefit or Impact	This is mainly an industrial area, with only a few residential dwellings mainly located near to the Caledonian Thistle football ground, with some to the south of the option near the Raigmore roundabout. There is potential for short-term noise and vibration impacts during construction activities such as piling, earthworks and vehicular movements. During operation there is likely to be no benefit or impact to residents as although traffic decreases on Stadium Road, the dumbbell roundabout configuration moves traffic closer to the receptors near Stadium Road. It is likely that potential impacts during construction could be reduced through adherence to construction best practice.

	Biodiversity and Habitats – Major Impact	Construction activities have the potential to impact on the Moray Firth (SAC), Inner Moray Firth (SPA) and Longman and Castle Stuart Bays SSSI through disruption to foraging patterns and flightlines of qualifying species. Construction within the former Longman Landfill has potential to release contaminants which may impact on the internationally important sites. The route option, at its closet point, is within 400m of the Moray Firth SAC and as the junction involves additional land-take the impacts associated with this option on this internationally important site are potentially major. In addition there is potential for loss of bat habitat and trees with bat roost potential and loss of species listed in the National and Local Biodiversity Action Plans. It is likely that potential impacts could be reduced through mitigation such as adherence to SEPA’s Pollution Prevention Guidelines, the erection of mammal proof fencing along the boundary of the carriageway, provision of suitable habitat for protected species (e.g. bat boxes), and sympathetic design of any lighting. However, as the junction associated with this option is constructed within the boundary of the former landfill site and is within close proximity to the SAC/SPA, SSSI and Important Bird Area it has the potential to require more specific mitigation.
	Agriculture and Soils - No Benefit or Impact.	Land is not used for agriculture.
	Landscape & Visual - Moderate Impact	Impacts on landscape character will result from an alteration to landform through the introduction of additional carriageway width, gyratory, two new dumbbell roundabouts, new overbridge, slip roads and embankment (up to approximately 8m high) and realignment of Stadium Road associated with grade separation. Impacts are also likely to be experienced through the loss of existing roadside woodland and scrub planting (mainly to the east and west of the existing Longman roundabout). The increased height of the carriageway, traffic and road lighting has the potential to result in visual impacts on adjacent light industrial areas and Inverness Caledonian Thistle football ground. It is likely that potential impacts could be reduced through mitigation such as sensitive design of the alignment and associated infrastructure (e.g. grading out of embankment slopes) and landscape planting.

	<p>Water Quality, Drainage and Flood Defence.</p> <ul style="list-style-type: none"> <li>• Water Quality – Moderate Impact.</li> <li>• Flood Risk – Small Minor Impact.</li> </ul>	<p>Construction of this option has the potential to alter existing drainage patterns and there is potential for increased fine sediment supply and chemical pollution. In addition temporary increases in peak runoff and volume have the potential to increase flood risk. There is also potential for exposure/disturbance of contaminants and/or leachate from the former Longman Landfill and this would pose a Moderate risk to localised water quality in the Moray Firth SAC and Inner Moray Firth SPA/Ramsar site. During operation the increase in impermeable area may result in permanent changes to the hydrological regime increasing flood risk. Any future increase in traffic volumes are likely to result in increased volume of contaminated runoff and risk of accidental spillages as a result of vehicular collision. It is likely that potential impacts could be reduced through mitigation, such as adherence to SEPA's Pollution Prevention Guidelines and construction best practice and the provision of Sustainable Drainage Systems (SUDS). However, as the junction associated with this option is construction within the boundary of the former landfill site and is within close proximity to the SAC/SPA it has the potential to require more specific mitigation.</p>
	<p>Geology - Moderate Impact.</p>	<p>Contaminated land within the vicinity of the route option includes the Inverness to Lossiemouth fuel pipeline, the former Longman Landfill and the Aberdeen to Inverness Railway Line. There is the potential impact during construction on groundwater through increased fine sediment supply, chemical pollution and potential exposure/disturbance of contaminants from contaminated land sites. In addition potential impacts may arise from direct interaction and potential off-site removal of contaminated material. It is likely that potential impacts could be reduced through standard mitigation such as adherence to construction best practice and establishment of appropriate health and safety measures for working with contaminated land. However, as the junction associated with this option is construction within the boundary of the former landfill site and is within close proximity to the SAC/SPA it has the potential to require more specific mitigation.</p>
	<p>Social Inclusion &amp; Integration – Moderate Benefit.</p>	<p>A temporary increase in congestion and journey times during construction for roads in the study area is predicted, which is likely to impact on the local communities ability to access local services and facilities. During operation there is likely to be a decrease in journey times across the network. This is particularly evident for communities on the A9 South of Milton Leys, improving their access to local facilities and employment in and around Inverness. It is likely that potential impacts during construction can be reduced through the use of traffic management systems and adequate signage of diversions.</p>

	<p>Planning and Policies*</p> <p><i>*Due to the stage of the development proposals it is not possible to identify a STAG rating for planning and policies. The key policies where potential conflicts may occur have been identified.</i></p>	<p>Potential for conflict with Highland Wide Local Development Plan (HWLDP) Policy 5 which states that future supplementary guidance on the development of the Former Longman Landfill Site may include the requirement that developers will provide a 30 metre undeveloped corridor to safeguard the high pressure gas pipeline. Impacts on Moray Firth SAC, Inner Moray Firth SPA and Ramsar introduce a potential for conflict with Policies 57 and 58 and 72 of the HWLDP.</p>
<p>Safety:</p>	<p>Minor Benefit</p>	<p>Between 2000 and 2010 there were 14 slight accidents and 2 serious accidents at or on approach to Longman Junction. Most of the accidents occurred on the roundabout and through the grade separation of the A9 through movements, and reducing the conflicting right turn movements from the A9 North to the A82 and the A82 to the A9 South, this option will have a positive impact on safety of the junction.</p>

<p>Economy:</p>	<p>Minor Negative</p>	<p>This option has shown journey time reductions along the A9 and from the A96 to the Kessock Bridge in the peak periods. In particular, traffic movements from the A9 South of Milton of Leys to the A9 Kessock Bridge show significant journey time reductions of 43% and 26% respectively in the AM and PM peak periods.</p> <p>Journey times reduce for the majority of movements through the junction, with a decrease of the following in the AM Peak:</p> <ul style="list-style-type: none"> <li>• Kessock Bridge to A9 South (13%)</li> <li>• Stadium Road to Kessock Bridge (42%)</li> <li>• Stadium Road to A82 (13%)</li> <li>• A9 South to Kessock Bridge (43%)</li> <li>• A9 South to Stadium Road (39%)</li> <li>• A9 South to A82 (23%)</li> <li>• A82 to Stadium Road (12%)</li> <li>• A82 to A9 South (7%)</li> </ul> <p>There are similar reductions in the PM Peak:</p> <ul style="list-style-type: none"> <li>• Kessock Bridge to A9 South (10%)</li> <li>• Kessock Bridge to A82 (4%)</li> <li>• Stadium Road to Kessock Bridge (51%)</li> <li>• Stadium Road to A9 South 1%)</li> <li>• Stadium Road to A82 (5%)</li> <li>• A9 South to Kessock Bridge (26%)</li> <li>• A9 South to Stadium Road (23%)</li> <li>• A9 South to A82 (19%)</li> </ul> <p>There are a number of movements that show an increase in journey time in either one or both peaks, these are</p> <ul style="list-style-type: none"> <li>• Kessock Bridge to Stadium Road (24% in the AM Peak and 6% in the PM Peak)</li> <li>• Kessock Bridge to A82 (15% in the AM Peak)</li> <li>• A82 to Kessock Bridge (4% in the AM Peak and 10% in the PM Peak)</li> <li>• A82 to Stadium Road (3% in the PM Peak)</li> </ul>
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<p>Integration:</p>	<p>Minor Benefit</p>	<p><u>Transport Integration</u>            There are almost 300 buses that use Longman Junction on a daily basis<sup>1</sup>, including close to 80 during each peak period. Removing the delays from the junction as this option does will have a positive effect on the journey times and reliability of the buses using this junction. More reliable bus times allow for connections to other routes to be made with more certainty and would encourage travel by other modes.</p> <p><u>Transport &amp; Land Use Integration</u>            The option will not result in any conflicts with National, Regional or Local transport policies. The option will support and compliment Scotland’s Cities: Delivering for Scotland and enhance the Connected Cities objective through improving the transport infrastructure on the A9 trunk road accesses to Inverness.</p> <p>Potential for conflict with Highland Wide Local Development Plan (HWLDP) Policy 5 which states that future supplementary guidance on the development of the Former Longman Landfill Site may include the requirement that developers will provide a 30 metre undeveloped corridor to safeguard the high pressure gas pipeline. Impacts on Moray Firth SAC, Inner Moray Firth SPA and Ramsar introduce a potential for conflict with Policies 57 and 58 and 72 of the HWLDP.</p>

<sup>1</sup> Based on Junction Turning Counts from November 2012.

<p>Accessibility and Social Inclusion:</p>	<p>Small Minor Impact / Minor Benefit. I</p>	<p>In relation to local communities the option negatively impacts on the commuter areas north of the Kessock Bridge through increased journey times through to Inverness. However, communities to the south benefit in their ability to access local facilities and employment through improved journey times around the road network.</p> <p>This option will not provide any new opportunities for non-motorised users however it will improve the quality and safety of the junction making it more appealing to pedestrians and cyclists.</p> <p>The reduction in congestion and improvement in journey times could make public transport more attractive.</p>
<p>Rationale for Selection or Rejection of Proposal:</p>	<p>The option would directly contribute towards the objectives of improving the effectiveness of the road network hierarchy, improving safety for motorised and non-motorised users by reducing the accident rate at trunk road junctions, and improve the operational performance of the trunk road network and junctions on the A9.</p> <p>However, there are minor disbenefits to users travelling from the A9 North to Inverness in terms of journey time increases, and the option overall provides a lower level of journey time savings and economic benefits compared to Option 3.</p> <p>It is therefore recommended that this option be rejected.</p>	