

Proposal Details				
Proposal Name:	Inshes to Smithton Trunk Link Road			
Proposal Description:	part of the A96 Inverness to Nairn dualling		Capital costs/grant £85 million (2012 prices excluding VAT)	
Background Information - Transport Scotland comment - Please see General Comments				
Geographic Context:	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. Culloden Road (B9006) is located to the south east of Inverness and to the east of the A9. It provides an important connection between the settlements to the east of the A9 and Inverness. As a result the Culloden Road/B8082 junction at Inshes experiences high levels of traffic and traffic is subject to delays especially during peak periods. The A9 and A96 are subject to the national speed limit. Culloden Road is urban in nature, has a speed limit of 40 mph until it's junction with the B8082 at Inshes.			
Social Context:	The areas which would be affected by the East Link Road element are Inshes, Smithton, Culloden, Westhill and Cradlehall as well as the proposed future developments to the East of Inverness. These areas are characterised by a higher proportion of economically active residents (77% as per 2011 census) than the Scottish average (69% as per 2011 census). Unemployment levels in the area are lower than both the Scottish national average and across the Highland region as a whole. Residents of these areas earn on average more than the national and regional average. The option does not pass through or lie in close proximity to any datazone areas that are ranked in the top 15% of the Scottish Index of Multiple Deprivation (SIMD 2012). The Inshes to Smithton Trunk Link Road may have a wider impact on the area than other options due to the scale and location of the new link road.			



Appraisal Sullillary Tables	insites to Similation Trank Link Hoad		
Economic Context:	Both the A9 and A96 are of strategic and local economic importance.		
Planning Objectives			
Objective:	Performance against planning objective:		
L1: Improve journey time and increase opportunities to travel, particularly by public transport, between Aberdeen and Inverness.	L1 — Positive Moderate Benefit This option removes the South to East and East to South movements from Raigmore Interchange, and in doing so improves the performance of Raigmore Interchange. This results in journey time savings between the A96 and the Milburn Road / Harbour Road junction of 57% in the AM and 15% in the PM and in the reverse direction 10% in the AM and 3% in the PM. Public Transport between Aberdeen and Inverness should benefit from the improved operation of Raigmore Interchange and reduced journey times on the route		
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	L2.1 – Moderate BenefitPositive This option provides a new strategic link between the A9 and A96 which removes the traffic from the East to South and South to East movements at Raigmore Interchange and improves the operation of the interchange as a result. It has to be noted that only from all traffic uses Raigmore Interchange to travel from the East to South 5% is a strategic traffic during morning peak and 21% in the evening peak. The traffic analysis suggested that the Raigmore Interchange would be used by the traffic coming to/from Northern Inverness and A9 north and carries on the journey at A96, where the new Inshes Interchange would be used by traffic from/to Southern Inverness and carry on the journey at A96 or to East Inverness. In both peak hours the secondary road network through Smithton sees a reduction in traffic flows as trips transfer onto the new link road to access South Inverness and the A9. The option also results in reductions in traffic on the A96 on approach to Raigmore of 17% Eastbound and 18% Westbound in the AM peak, and 23% Eastbound and 22% Westbound in the PM peak. The A9 south of Raigmore also exhibits traffic reductions of 30% Northbound and 36% Southbound in the AM peak, and 42% Northbound and 10% Southbound in the PM peak.		



Appraisal Summary Tables	Inshes to Smithton Trunk Link Road
L2.2: Reduce conflicts for longer distance and local traffic for planned development areas to the east.	L2.2 - Moderate BenefitPositive This option provides a dedicated link for traffic travelling between the A9 and A96. It allows strategic traffic to travel between the East and South without travelling through Raigmore Interchange. Local movements from the planned development areas will continue to use the A96 to access Inverness City Centre, as will strategic traffic between Aberdeen and Inverness City Centre. Raigmore Interchange would see an improvement in operation due to the rerouting of a degree of local traffic onto the new trunk link road. The link road will remain attractive to traffic accessing Inverness East from the Inverness South and West areas.
L3: Improve connectivity, particularly by public transport and active travel, between Inverness city centre and the growth area to the east including Inverness Airport	L3 – Slight ImpactMinor Benefit This option provides the opportunity for new public transport routes from Inverness City Centre and Inverness South and the airport, however there are no junctions along the link to allow public transport to serve the communities in between. The new link is designed as a dual carriageway trunk road and facilitating provision for active travel links to cross the link is made more difficult. The new link severs a core path and a national cycle route in the area and so would have a negative impact on active travel in the area. The reductions in journey times through Raigmore Interchange caused by the rerouting of South to East and East
L4: Improve safety for motorised and non-motorised users by reducing the accident rate at Trunk Road junctions	to South movements will have a positive impact on public transport between Inverness and the growth area to the East with the potential location for a 'park and ride' side at Smithton. L4- Slight PositiveMinor Benefit The option will reduce traffic and congestion in and around Raigmore Interchange and thus reduce accident numbers. This may be negated by the increase in speeds approaching the junction which may result in a higher severity of accident. The new grade separated interchange at Inshes will be built to modern safety standards and so should improve the safety compared to the existing A9 Inshes junction. However the construction of a new link may partially offset these potential benefits as the additional road space increases traffic flows and therefore opportunities for accidents to occur.



Appraisal Sullillary Tables	mishes to smithton trank tink noad		
5.1: 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.	L5.1- PositiveModerate Benefit This option improves the performance of Raigmore interchange by removing the South to East and East to South movements as a result it has a positive impact on Journey times on the trunk road. In the AM peak the following journey time savings are evident: • A9 South of Milton on Leys to A96 (25%) • A96 to Kessock Bridge (31%) • A96 to A9 South of Milton on Leys (46%) In the PM peak the following journey time savings were modelled: • A9 South of Milton on Leys to Kessock Bridge (13%) • A9 South of Milton on Leys to A96 (28%) • A96 to Kessock Bridge (25%) The new interchange at Inshes will improve the operation of that junction and so the operation of the A9 trunk Road, due to the removal of substandard arrangement to one more suited to prevailing and future traffic flows.		
L5.2 Improve the operational performance of the secondary network and junctions where this may improve the operation of the Trunk road network	L5.2- Slight PositiveMinor Benefit Modelling has shown a reduction in traffic on the local roads suggesting a transfer of traffic away from the B9006 and Tower Road and onto the new link road. The operational improvements provided by this option to the trunk road network will provide an additional benefit in improving the operation of these roads on the secondary road network.		
Implementability Appraisal			
Technical:	The new link road would be implemented using proven methods and technology. Disruption during construction is likely and temporary works and traffic management would be required in order to mitigate the impact.		
Operational:	There are no factors which might adversely affect the ability to operate the proposal over its projected life with major additional costs.		
Financial:	The implementation of this option would be subject to funding availability and other competing priorities throughout Scotland such as Scottish Government, developers or The Highland Council.		
Public:	This proposal is in the public domain and was presented at Public Exhibition in February 2012. Consultation feedback from the public and local residents, landowners and businesses was not favourable due to the impact the new junction at Dell of Inshes and the impact on views of the Moray Firth from properties in Cradlehall. This option will require compulsory purchase of properties in the Inshes and area.		



STAG Criteria		
Criterion	Assessment Summary	Supporting Information
	Global and Local Air Quality – Major Impact	The route alignment goes through an area of mainly agricultural land, with a junction constructed to the north of Inshes. The route alignment goes within close proximity of Ashton Farm and residential receptors to the north of Inshes. Other sensitive receptors nearby include the residential areas of Smithton and Cradlehall. There are potential significant air quality impacts during operation through moving traffic closer to the residential receptors of Ashton Farm and those in the north of Inshes. In order to determine whether it is feasible to mitigate against and reduce the level of these potential impacts, further work will need to be undertaken to incorporate the traffic data into an air quality model. This would help to determine the level of impact at each sensitive receptor and allow a review of potential mitigation options to be considered.
Note – all STAG ratings for individual assessment areas are expressed without mitigation.	Cultural Heritage – Moderate Impact	The option will result in an impact on setting for the Aston Farm Cottages Ring Ditch and Pit Circles Scheduled Monument, with severance of the two parts of the monument. There is also a potential impact on the setting of a listed building Castlehill House (Category B Listed building). There is also high potential for impact on unknown archaeological remains in this area. It is unlikely that mitigation will significantly reduce the impact on the setting of the scheduled monument. It is likely that any potential impacts on the setting of Castlehill House could be reduced through standard mitigation such as design of route option to minimise visual intrusion and through landscape planting.
Overall STAG Rating - Major Impact	Noise & Vibration – Major Impact	The route alignment goes through an area of mainly agricultural land, with a junction constructed to the north of Inshes. The route alignment goes within close proximity of Ashton Farm and residential receptors to the north of Inshes. Other sensitive receptors nearby include the residential areas of Smithton and Cradlehall. There is potential for short-term noise impacts during construction activities such as piling, earthworks and vehicular movements, and significant impacts during operation through moving traffic closer to the residential receptors of Ashton Farm and those in the north of Inshes. In order to determine whether it is feasible to mitigate against and reduce the level of these potential impacts, further work will need to be undertaken to incorporate the traffic data into an noise model. This would help to determine the level of impact at each sensitive receptor and allow a review of potential mitigation options to be considered.



Appraisal Summary Tables		Inshes to Smithton Trunk Link Road
	Habitats and Biodiversity – Moderate Impact	Although the route option is located to the south of the Moray Firth (SAC), Inner Moray Firth (SPA) and Longman and Castle Stuart Bays SSSI there is still the potential, as a result of construction and any changes to lighting regimes, to impact on these sites through loss of foraging habitat and disruption to foraging patterns and flightlines of SPA qualifying species. Further to this as the area supports the habitats suitable for European Protected Species (Cairnlaw Burn for otters, ponds for Great Crested Newts and broadleaved and mature woodland for bats) impacts could arise through loss and severance of habitat. There are also potential impacts on badgers through fragmentation and loss of habitat or direct mortality. 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. In light of the proximity of the SPA, potential impacts on foraging areas used by qualifying species may require more specific mitigation.
	Agriculture and Soils – Moderate Impact	Land-take of 'Prime Quality' agricultural land and potential for severance may reduce the viability of farm units, in particular for Ashton Farm, Stratton Farm and Beechwood Farm. It is likely that potential impacts could be reduced through mitigation such as refined design of the route option to minimise land-take, review of the opportunities to return surrounding land to agriculture and financial compensation for land owners, where land is being lost.
	Landscape & Visual – Major Impact	There are impacts in relation to landscape character due to the introduction of road and traffic (on embankment and bridge over the railway) into an open, relatively flat landscape (Enclosed Farmed Landscapes Landscape Character Type (LCT)). This has the potential to erode the rural character of the agricultural buffer between settlement and the Moray Firth. There are also direct effects on landscape character from the severance of minor watercourses and field patterns and loss of field boundary, riparian trees and scrub vegetation. The introduction of a new junction at the A9 will not significantly impact on the urban character of the Inverness Urban Fringe and Culloden LCT. Construction of the A9 junction is likely to significantly impact on the visual amenity of residents to the north of Inshes due to its close proximity to these receptors. As the route moves further towards Smithton there is likely to be impacts on the visual amenity for settlements such as Cradlehall, Smithton (to a lesser extent), Ashton and Beechwood Farm cottages, the National Cycle Route and the Core Path. These are likely to experience an interruption of their views to the Moray Firth. The National Cycle Route and Core Path are also severed by this option, reducing visual amenity when using these routes. It is likely that most of these potential impacts could be reduced through mitigation such as sensitive design of the alignment and associated infrastructure (e.g. grading out of embankment slopes), landscape planting and where possible realignment of the Core Path/NCR. However, where the new A9 junction is within close proximity to residential



Appraisal Summary Tables		Inshes to Smithton Trunk Link Road
		receptors, there is limited opportunity for effective mitigation of visual impacts.
	Water, Drainage and Flood Defence. Water Quality - Moderate Impact Flood Defence – Moderate Impact	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. During operation the increase in impermeable area may result in a permanent alteration to the hydrological regime; increasing flood risk. Any future increase in traffic volumes may 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, the provision of Sustainable Drainage Systems (SUDS) and compensatory flood storage (where required).
	Geology & Soils Moderate Impact	Contaminated land within the vicinity of the route option includes the Inverness to Aberdeen Railway Line, Inshes Boarding Kennels, Ben View Pet Cemetery, Stratton Farm Petrol Tank, Smithton Junction Made Ground, Inshes Sewage Treatment Works, Smithy 1, Tesco Filling Station, Laundry and a Works Depot. There is the potential to impact on groundwater quality during construction due to 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 mitigation such as adherence to construction best practice and establishment of appropriate health and safety measures for working with contaminated land.
	Social Inclusion and Integration - Major Impact	The route passes through both undeveloped agricultural land and a commercial / residential area. During construction there are likely to be impacts due to congestion and increased journey times for the residential areas near the A9 junction. This will impact on communities in their ability to access local facilities and services. The route will also result in the removal of commercial and residential properties. A Core Path and National Cycle route are severed as part of this option at Ashton Farm and North Caulfield Road. It is likely that potential impacts can be mitigated and therefore reduced, with the exception of the removal of residential/commercial properties. Financial compensation will need to be considered in relation to this. It is likely that the potential impacts on the National Cycle Route and Core Path could be reduced through realignment or provision of infrastructure to allow these paths to cross the route option.



Appraisal Summary Tables		Inshes to Smithton Trunk Link Road
	Planning * *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.	Impacts on Aston Farm Cottages Scheduled Monument introduces a potential for conflict with Policies 57 of the HWLDP. Impacts on the Core Path and National Cycle Route could introduce a potential conflict with Policy 77 of the HWLDP and Policy 34 of the INLP.
Safety:	Moderate Benefit	The option also shows a reduction of traffic on the secondary road network around Smithton and Culloden that should have a positive impact on the accidents in the area. It should also reduce traffic levels and congestion in and around Raigmore Interchange and improve accident rates there. The new grade separated junction at Inshes will be built to modern standards and so provide improved safety benefits compared to the existing Inshes arrangement. The creation of the new link between Smithton and Inshes may partially offset the accident benefits as the additional road space increases traffic flows and therefore opportunities for accidents to occur.
Economy:	Major Impact	VISUM modelling has shown that the main benefits from this option are for trips between the A96 area and the South of Inverness. Journey time reductions were shown on the routes between the two areas, the modelled journey time reductions in the AM peak were: • Barn Church Road to Sir Walter Scott Drive (51%) • A96 to Sir Walter Scott Drive (55%) • Barn Church Road to Old Perth Road (23%) • A96 to Old Perth Road (47%) • Old Perth Road to A96 (27%) • Old Perth Road to Barn Church Road (24%) • Sir Walter Scott Drive to A96 (12%) • Sir Walter Scott Drive to Barn Church Road (14%) In the PM peak along the same routes the following journey time reductions were modelled. • Barn Church Road to Sir Walter Scott Drive (34%)



Inshes to Smithton Trunk Link Road

- A96 to Sir Walter Scott Drive (34%)
- Barn Church Road to Old Perth Road (3%)
- A96 to Old Perth Road (12%)
- Old Perth Road to A96 (4%)
- Old Perth Road to Barn Church Road (7%)
- Sir Walter Scott Drive to A96 (12%)
- Sir Walter Scott Drive to Barn Church Road (14%)

This option has also shown journey time reductions along the A9 and from the A96 to the Kessock bridge in the peak periods. Especially for those trips from the A96 to A9 South of Milton of Leys and the Kessock Bridge. However these movements only make up 25-30% of trips northbound on the new link and less than 10% of southbound movements on the new link.

There are increases in journey times for trips between Sir Walter Scott Drive and Old Perth Road to the A9 South in both peaks. This is due to delays at the local road connection to the Inshes Interchange.

The indicative economic appraisal (TUBA only) shows that the option would not provide sufficient economic benefits to justify investment with a Benefit to Cost Ratio (BCR) of approximately 0.5.



Appraisal Summary Tables		Inshes to Smithton Trunk Link Road
Integration:	Minor Impact	Transport Integration The reduction in traffic and subsequent reduction in delays at Raigmore Interchange will have a positive effect on the journey times and reliability of the buses passing through this junction. More reliable bus times will allow for connections to other routes to be made with more certainty and would encourage multi modal travel. However the option is less suitable to encourage new active travel links and would sever an existing path and cycle route. Transport & Land Use Integration This option is less well integrated with the Highland Council's proposed developments at East Inverness, as there is no provision for access off the trunk road link. Policy Integration This option does not conflict with any national, regional or local transport policy. The option will contribute to the National Transport Strategy Key Strategic Outcomes through improving Journey Times and Connections between Aberdeen and Inverness, and Inverness and the central belt. It is likely to have a neutral to moderate benefit in Reducing Emissions as a result of the reduction in congestion at the trunk road junctions, although this may be partially offset by increases in average speeds due to reduced congestion and delays. The option may overall have a minor impact on Quality, Accessibility and Affordability as it will improve public transport opportunities, although the option will have some severance impacts on active travel routes. 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 and A96 trunk road accesses to Inverness. Impacts on Aston Farm Cottages Scheduled Monument introduces a potential for conflict with Policies 57 of the HWLDP. Impacts on the Core Path and National Cycle Route could introduce a potential conflict with Policy 77 of the HWLDP and Policy 34 of the INLP.



Appraida dammary rabiod		
Accessibility and Social Inclusion:	Major Impact	The route passes through both undeveloped agricultural land and a commercial / residential area. During construction there are likely to be impacts due to congestion and increased journey times for the residential areas near the A9 junction. This will impact on communities in their ability to access local facilities and services. The route will also result in the removal of commercial and residential properties. A Core Path and National Cycle route are severed as part of this option at Ashton Farm and North Caulfield Road. It is likely that potential impacts can be mitigated and therefore reduced, with the exception of the removal of residential/commercial properties. Financial compensation will need to be considered in relation to this. It is likely that the potential impacts on the National Cycle Route and Core Path could be reduced through realignment or provision of infrastructure to allow these paths to cross the route option.
Rationale for Selection or Rejection of Proposal:	As the previously published option, it formed the comparator for the alternative Inshes to Smithton options and was therefore taken forward for further appraisal.	