Agenda Item	**12**
Report No	**CIA/16/17**

HIGHLAND COUNCIL

Committee: **City of Inverness Area Committee**

Date: **19 June 2017**

Report Title: **A9/A96 Inshes to Smithton Road Project – Update Report**

Report By: **Director of Development and Infrastructure**

1. Purpose/Executive Summary

1.1 This report updates Members on progress by Transport Scotland on the A9/A96 Inshes to Smithton road project (better known as "East Link"), which is intended to connect the A9 and A96 on the east side of Inverness. This scheme is a significant element in the Inverness and Highland City-Region deal. The project is still at route options stage and these options have different implications for the Highland Council (THC), for local residents, for the local environment and for the local economy.

2. Recommendations

2.1 Members are asked to:

(a) Note the implications of Transport Scotland's "East Link" road route options as detailed in this report;

(b) Agree that the Council attends Transport Scotland's Value for Money Workshop on a no prejudice basis but adopts the following initial stance and objectives:
- (i) an additional "running" lane on the southbound A9 as an early priority;
- (ii) further discussions on how East Link's detailed design specification can better contribute to Inverness East as a future place;
- (iii) a Council preference for variant B and a request that its junction(s) at or close to Ashton Farm include a stub link to aid future road development;
- (iv) The avoidance of the woodland that lines Caulfield Road North should be a design parameter at the next detailed design stage;
- (v) no Council objection to Route Options 1 and 2 provided that suitable mitigation (including a like for like replacement of Inshes overbridge if it is demolished) is provided for whichever route is progressed;
- (vi) seek further information and reassurance on the traffic implications of Option 3 as detailed in section 6 of this report noting that if the further work being undertaken by Transport Scotland mitigates the concerns identified in this report then consideration to adopting Option 3 should remain, in recognition of the reduced environmental impacts that this Option offers; and
- (vii) a report will be brought to a future meeting of this Committee for a decision on the formal position of the Council.

3. Background

3.1 The 2 September 2014 City of Inverness Area Committee considered and agreed a Council response to Transport Scotland's A9/A96 Connections Study. Transport Scotland took forward all the suggestions made by the Council into the subsequent design stage and close co-operation continues.

3.2 Members will recall that it is established Highland Council planning policy and National Planning Framework policy to direct Inverness' medium to longer term growth eastwards into the A96 corridor, including land between the Culloden suburbs and the A96. The A9/A96 Inshes to Smithton road project (better known as "East Link") is necessary to help activate this City expansion area, whilst also aiding in the removal of local traffic from the trunk road network. A large proportion of the City's future employment, housing and infrastructure growth will be in this area. Transport Scotland is funding the construction of the majority of the East Link, although developer contributions will also be sought towards the cost.

3.3 East Link is the latest iteration of a project which began in 2008 when it was recognised that there was an existing and worsening future trunk road network capacity issue on the east side of Inverness. Between 2008 and 2016, transport solutions have been formulated, assessed, consulted upon and refined. The potential corridors of land within which the road will pass have been narrowed, the junction designs have been better defined and the scale of the road has been reduced to a single carriageway connection. The A9/A82 Kessock Bridge junction upgrade has been split off to a separate Inverness and Highland City-Region deal project which will see design work started in the short term. As part of the Scottish Government's commitment in the **Inverness and Highland City-Region Deal**, Transport Scotland is now progressing plans for a single carriageway road connecting Inshes to Smithton - the East Link - which gives more certainty over its delivery and implementation timescale. It is understood that a decision on the preferred option will be taken by Scottish Ministers during 2017.

3.4 Transport Scotland has defined the **East Link objectives** as:

- to encourage more effective use of the road network hierarchy and thereby improve the operation of the network for longer distance and local journeys;
- to contribute to THC's Development Plan aims for development east of the A9, and to complement the benefits arising from the dualling of the A96;
- to improve safety for motorised and non-motorised users where the trunk and local road network interact; and
- to maximise opportunities for active travel and public transport connections arising from the road infrastructure improvements.

3.5 The most recent Transport Scotland consultation took place between August and October 2016 and included well attended public events at Smithton and Inshes. Council officials and some Members attended these events and received anecdotal feedback of what local residents and other interests thought of the route options.

3.6 Council officials are currently preparing an **Inverness East Development Brief** which will set out the optimum land use arrangement either side of whichever "East Link" route is progressed. An initial workshop was held on 16 November 2016. A report on progress to date with the Brief was reported to this Committee in February 2017, and a draft Brief is scheduled to be taken to Committee in September 2017. One of the Brief's functions is to secure developer contributions towards the construction of East Link.

3.7 The Inverness East Development Brief, the proposed East Link and improvements to the local road network centred on Inshes Roundabout, rely on and inform the design of each other and are therefore being developed in close consultation between the various parties. Phase One of the local network improvements took place prior to the opening of the Inverness Campus with improvements to the Caulfield Road North junction and the A9 slip lane in conjunction with the construction of the new access to serve the Campus. Traffic modelling indicated that additional benefit would be gained by additional lanes on the Sir Walter Scott Drive northbound and Culloden Road westbound approaches to Inshes Roundabout with these further improvements delivered in early summer 2016. From existing and projected traffic volumes over Inshes overbridge there is clear further benefit to be gained by providing an additional lane Westbound over Inshes overbridge, and engineering studies have confirmed that this can be accommodated using the existing bridge. In February 2017, Committee agreed to support the additional running lane on the southbound A9 and that the Council should progress the design and contract for the construction of an additional westbound lane across the B9006 Culloden A9 overbridge as an early priority.

4. Description of Route Options and Common Attributes

4.1 The three principal routes are shown in Appendix 1. Each option has an **A and B variant** which differ only in terms of which side of the Ashton Farm buildings the road passes and therefore where the Inverness to Perth railway line is crossed and how close the road passes to existing housing at Cradlehall. The B variants were introduced following concerns expressed by Historic Environment Scotland that the A variants' routeing divides two scheduled monuments lying north of the railway line. The B variants are marginally closer to Cradlehall housing and therefore may affect residential amenity but are more likely to make development of the adjoining, allocated land at Ashton farm more effective – i.e. avoid potential land availability issues and reduce the length of connecting distributor road that would otherwise have to be funded solely by the Council and/or developer. The A variants have marginally fewer flood risk and tree loss implications than the B variants. The B variants offer better urban masterplanning opportunities in terms of efficient future active travel routes and the creation of a community/commercial hub on the east side of Ashton Farm (as per the design principles agreed by the Committee in February 2017).

4.2 The northern start of all three routes is at a new roundabout centred on where Barn Church Road will connect to the new, dualled A96 scheme. Thereafter, all three pass east or west of Ashton Farm, bridge over the Inverness to Perth railway line and connect to Caulfield Road North by means of a new roundabout. South of this point, Options 1 and 2 continue, to bridge over the B9006 Culloden Road and then the A9 below Simpsons Garden Centre, eventually connecting to Inshes Retail Park at the existing roundabout close to the Aldi store. **Options 1 and 2 differ only in terms of their connection with the A9**. Option 1 has no additional direct connection with the A9 whereas Option 2 has southbound off and on connectivity via a new roundabout below Simpsons Garden Centre. **Option 3 is a less radical transport intervention** - it does provide additional road bridge capacity across the A9 but at the existing Inshes overbridge. A new two lane bridge is proposed adjoining the existing Culloden overbridge together with approach lane widening. However, no other roadworks are proposed and no additional connectivity to the A9.

4.3 All 3 options assume a main **distributor road specification** for the scheme, similar to West Link. This is likely to comprise a 7.3 metre single carriageway and a contiguous 3 metre wide combined foot/cycle way (including separation strip) on each side and a limited number of roundabout junctions.

4.4 All 3 options include an additional, **A9 southbound, "running" lane** between the Raigmore Interchange and the A9/B9006 junction similar to the existing Northbound arrangement. Officers believe that the additional running lane will add road network capacity and help alleviate the safety issue (both existing and for the future option selected) of traffic queuing southbound on the A9 at the B9006 offslip junction. As this additional running lane is common to all options being considered, Transport Scotland should be encouraged to progress its detailed design and early implementation as a priority.

4.5 Planning and transport officers also believe that Transport Scotland should be encouraged to consider the function and specification of East Link to make it less of a barrier to movement across existing and future City neighbourhoods, whilst recognising its distributor road status. The accompanying Inverness East development Brief item to this Committee meeting provides more detail on this matter but the aim is a road that works both as a street and a through route.

5. Comparison of Route Implications

5.1 **Appendix 1** contains Transport Scotland's list of "key early considerations" for each route option. Highland Council officers' views on these issues are listed in headline form in **Appendix 2**. For the sake of brevity and to provide Members with a comparative analysis, issues raised that are common to all routes or the A/B variants explained in 2.1 above, are **not** listed.

5.2 Transport Scotland has employed consultants Jacobs to carry out the route assessment, and provide analysis and data to Scottish Ministers to aid route selection. It is clear that there are significant environmental and traffic issues to be considered in the selection of the preferred route.

5.3 Option 1 and particularly Option 2 are more significant in terms of scale, traffic benefit and cost than Option 3 but as a consequence would also have a greater negative impact on existing properties and the amenity their occupants presently enjoy. Option 3 despite its fewer amenity and heritage impacts would lead to a concentration in traffic flows on the local road network at an already congested location (albeit with a new Inshes overbridge). This concentration of traffic flow would make it challenging for the Council to design and progress an effective traffic solution for this local road network.

5.4 The avoidance of the woodland that lines Caulfield Road North should be a design parameter at the next detailed design stage.

6 Traffic Issues

6.1 The traffic issues and the traffic modelling work undertaken are worth further review and explanation in order for Members to understand the wider implications of the route selection to be made by Scottish Ministers. An overview of the issues is contained in Appendix 3. THC has employed AECOM to review the traffic models developed by Jacobs for Transport Scotland. Since August last year many iterative improvements have been made to the models in response to issues identified but agreement on the traffic impacts has yet to be reached with Transport Scotland. Transport Scotland has fully engaged with the traffic modelling analysis and work continues to ratify all the traffic modelling and data used in the selection of a preferred route. Notwithstanding broad agreement, detailed analysis of the traffic modelling undertaken by Transport Scotland has raised issues relating to the distribution of traffic and the traffic flows and congestion that may result on the local road network of the traffic flowing from the East link into the Inshes area, and also across the wider local road network.

6.2 As part of the DMRB Stage 2 Scheme Assessment process, Transport Scotland commissioned an independent auditor (Peter Brett Associates (PBA)) to undertake an audit of the operational traffic models for the scheme. PBA has produced an audit report and the findings consider the models fit for the purpose of the DMRB Stage 2 Scheme Assessment. As part of the audit remit, PBA are also commissioned to audit the relevant DMRB Stage 2 Assessment traffic and economics chapters, including the economic appraisal undertaken for the Inshes to Smithton options. Transport Scotland and Jacobs have reviewed the report and, in agreement with the Auditor, have made some relatively minor modifications to the models such that all parties are content with the operational models. The full audit report produced by PBA will be made available to THC and an update can be given at the Committee meeting.

7. **Next Steps**

7.1 The next step in the assessment process is to hold a Value for Money (VfM) workshop that Transport Scotland are currently preparing for and is programmed for the end of June 2017. This is an important milestone in the scheme development and therefore the Council has been invited to participate in the workshop. The objective of the workshop is to challenge the design team's assessment of the three options and is attended by Transport Scotland's wider management team and specialists. Each option will be reviewed in detail and the outcome of the assessment processed scrutinised and challenged by the participants to determine if the option assessments are robust and represent value for money.

7.2 The workshop will be held in accordance with those aspects of Transport Scotland's Value for Money (VfM) initiative set out within their Value for Money Manual. Transport Scotland have commissioned an independent facilitator from Capital Value & Risk Limited to manage the VfM study. The outcome of the VfM workshop will identify if any further work is required as part of the scheme assessment process as a result of any challenge of the information presented, or whether the provisional scoring remains and a preferred option is identified. A record of the findings of the workshop will be collated in the form of an Options Assessment Value for Money Workshop Report. Attendance of Council officers at the workshop will be on a no prejudice basis and will ensure that all of the issues raised in this report are fed directly into the process of option selection. A follow up report will be tabled at this Committee in due course for a decision on the formal position of the Council.

7.3 Following completion of the VfM workshop the option assessment process will be closed out and the DMRB Stage 2 report will be finalised. A Public Exhibition will be held following the publication of the DMRB Stage 2 report to present the findings of the assessment process and confirm the preferred option.

7.4 The DMRB Stage 3 Scheme Assessment process takes the preferred option selected at Stage 2 and looks to clearly identify the advantages and disadvantages, in environmental, engineering, economic and traffic terms. The scheme assessment reporting at this stage is split into two parts: the Environmental Statement; and a report covering all other aspects of the assessment not covered in the Environmental Statement. Further detailed design of the preferred option will be undertaken and the development of this will be presented to the public and key stakeholders as part of the consultation process during Stage 3. It will allow for further refinement of the design and an opportunity for the public and stakeholders to have input on this stage of the process.

8. Implications

8.1 Community, Climate Change/Carbon Clever, Gaelic, Risk and Rural - This report is about agreeing the Council response to another authority's capital project and therefore there are no direct implications arising from it.

8.2 Environmental - An initial assessment of environmental constraints and effects has been undertaken by Transport Scotland. Section 5 of this report provides a commentary on headline environmental considerations.

8.3 Resource, Legal and Risk Implications - There are no direct implications arising from this report but Transport Scotland's choice and timing of road scheme will have consequences for the Council's improvement, management and future maintenance of the local road network and the detailed design of the Inshes junction improvement contained within the Council's current capital programme.

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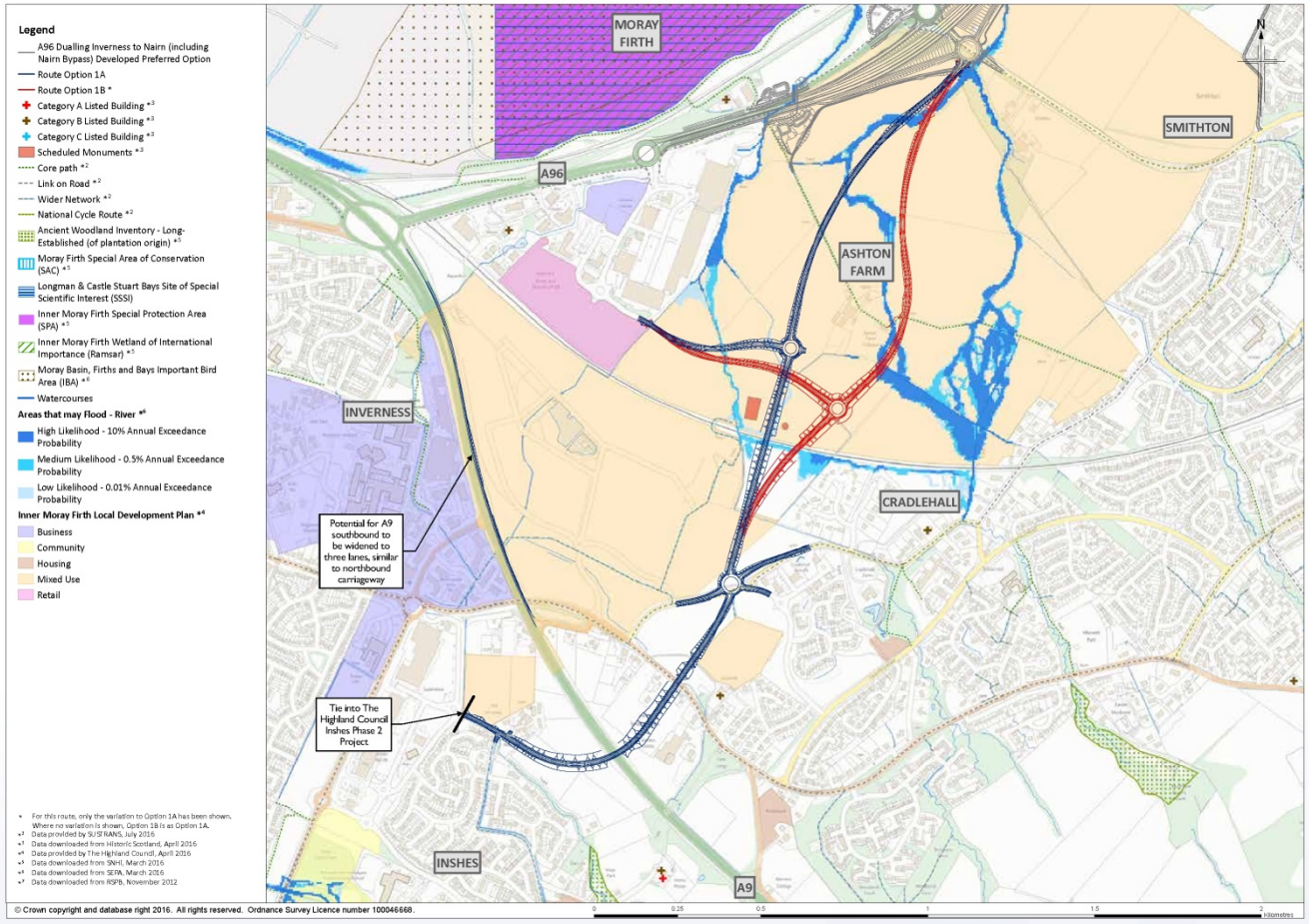
Date:	7 June 2017
Authors:	Malcolm Macleod, Colin Howell, Tim Stott, Bryan Stout
Background Papers:	A9/A96 Connections Study Report to and Minute of City of Inverness Area Committee 2 September 2014

APPENDIX 1: ROUTE OPTION MAPS

Option 1A/B

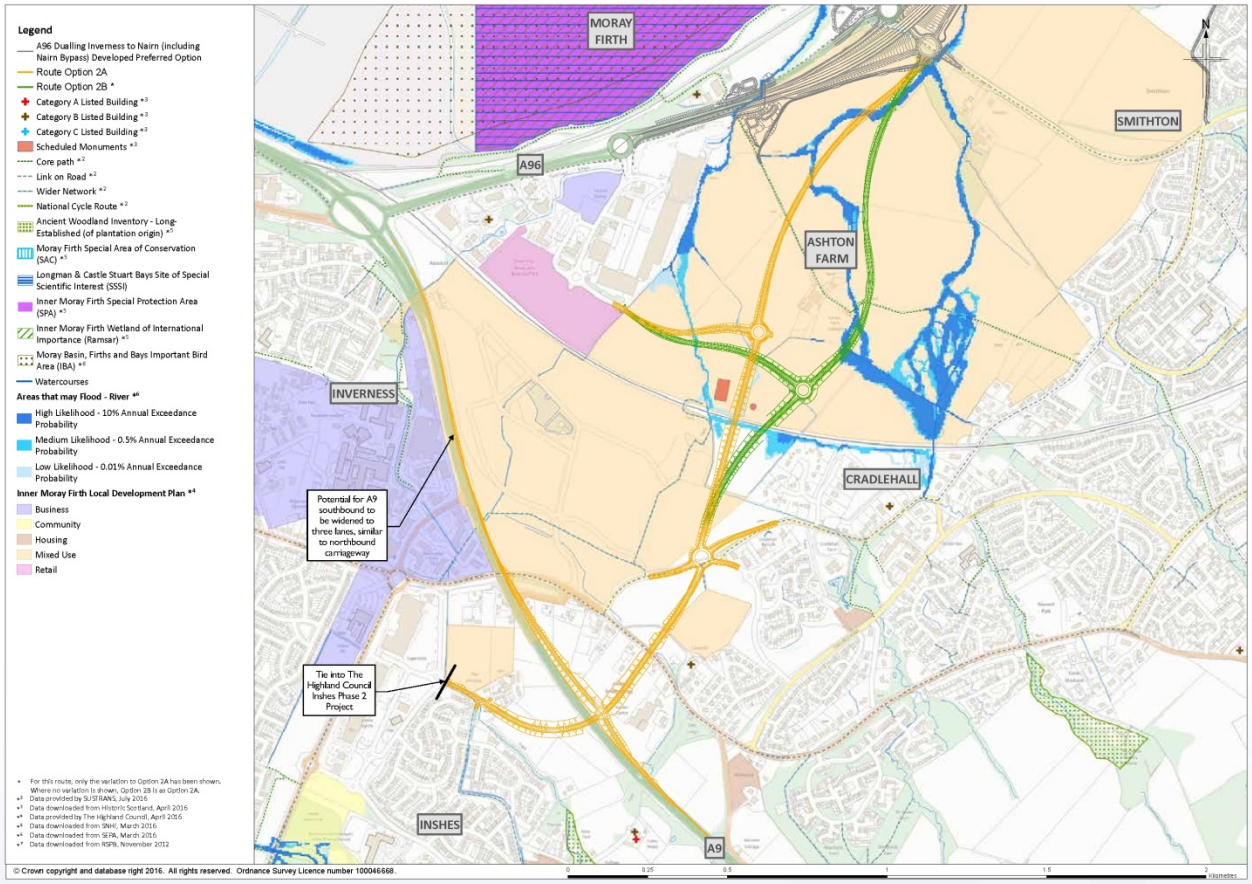


The OS mapping used in this drawing was obtained in July 2016 and is for illustration purposes only.

Key early considerations:

- potential land take from residential/commercial properties
- severs the grounds of a Category B listed building
- there are watercourse crossings and floodplain crossings
- Option 1B would require greater land take from flood plain than Option 1A
- Option 1A passes between elements of the Ring Ditch and Pit Circles (Scheduled Monument)
- Option 1B is in closer proximity to residential properties at Cradlehall
- the scheme is in close proximity to residential properties at Dell of Inshes
- reduces traffic on the A96, Culloden Road and Inshes overbridge
- intermediate cost
- The Highland Council Inshes Phase 2 Project.

Option 2A/B

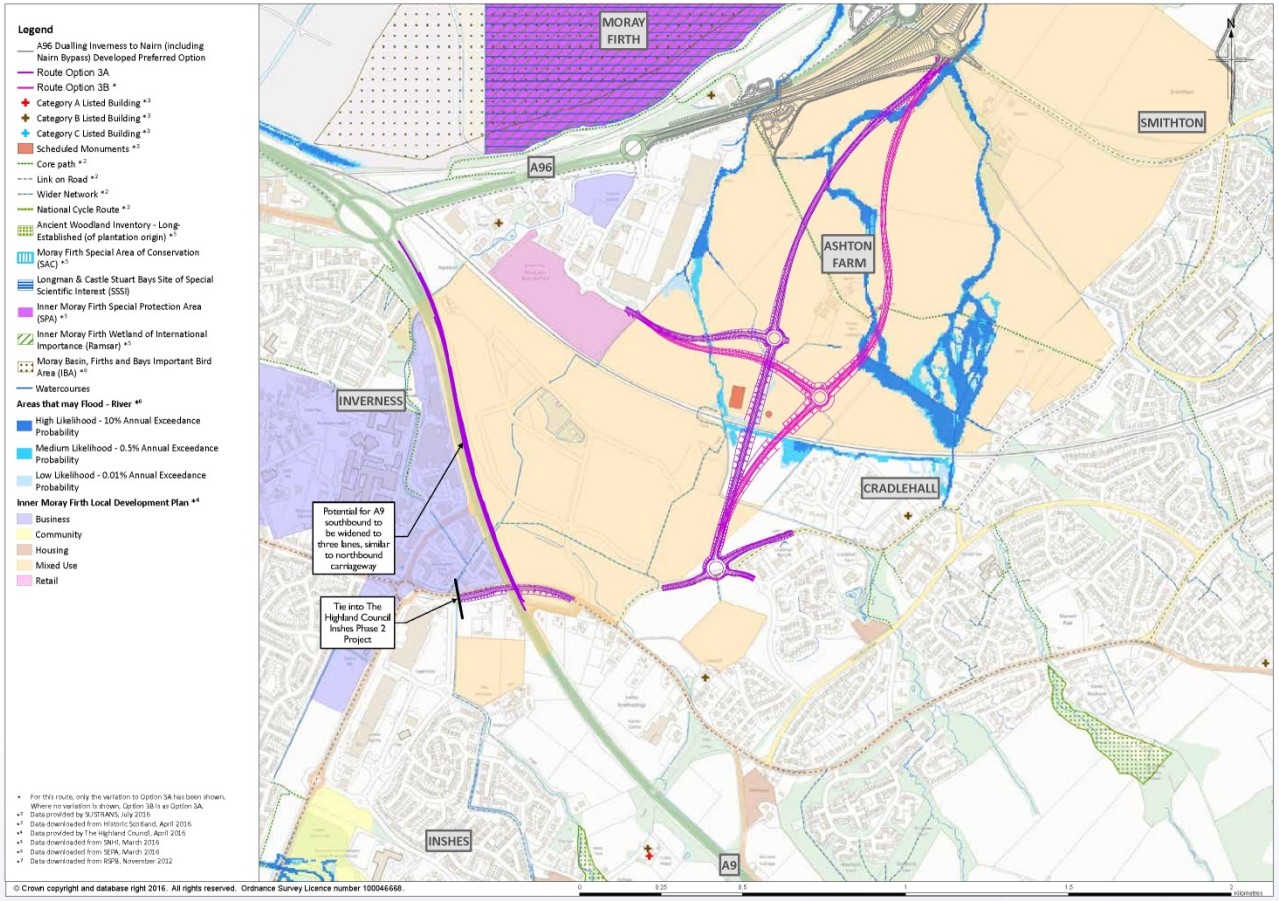


The OS mapping used in this drawing was obtained in July 2016 and is for illustration purposes only.

Key early considerations:

- potential land take from residential/commercial properties
- severs the grounds of a Category B listed building
- there are watercourse crossings and floodplain crossings
- Option 2B would require greater land take from flood plain than Option 2A
- the scheme requires demolition and replacement of existing Inshes overbridge
- Option 2A passes between elements of the Ring Ditch and Pit Circles (Scheduled Monument)
- Option 2B is in closer proximity to residential properties at Cradlehall
- the scheme is in close proximity to residential properties at Dell of Inshes
- reduces traffic on the A96, Culloden Road and Inshes overbridge
- this option has the largest reduction in A96 traffic
- higher cost than other options
- The Highland Council Inshes Phase 2 Project.

Option 3A/B



The OS mapping used in this drawing was obtained in July 2016 and is for illustration purposes only.

Key early considerations:

- no land take from residential property
- this option requires existing Inshes overbridge to be widened to accommodate multiple lanes in each direction
- there are watercourse crossings and floodplain crossings
- Option 3B would require greater land take from flood plain than Option 3A
- Option 3A passes between elements of the Ring Ditch and Pit Circles (Scheduled Monument)
- Option 3B is in closer proximity to residential properties at Cradlehall
- this option gives the lowest reduction in traffic levels on the A96
- lowest traffic flow on new road
- lower cost than other options
- The Highland Council Inshes Phase 2 Project.

APPENDIX 2 – OFFICERS' RESPONSE TO TRANSPORT SCOTLAND KEY CONSIDERATIONS

Option 1	Option 2	Option 3
Land Use & Economic	**Land Use & Economic**	**Land Use & Economic**
• Direct (Dell of Inshes and Castlehill House) and indirect impacts on existing residential and commercial properties (Ashton Farm, Cradlehall Meadows, Simpsons Garden Centre and Woodgrove [Inshes] development) • Cheaper than Option 2 but more expensive than Option 3.	• Direct (Dell of Inshes and Castlehill House) and indirect impact on existing residential and commercial properties (Ashton Farm, Cradlehall Meadows and Simpsons Garden Centre, Woodgrove [Inshes] development). • Higher cost than Options 1 and 3.	• Indirect impact on existing residential and commercial properties (Ashton Farm and Cradlehall Meadows). • Cheaper than either Option 1 or Option 2.
Environmental	**Environmental**	**Environmental**
• Significant adverse impact on the setting of the Category B Listed Building (Castlehill House) and its policy woodland • The new Culloden Road and the A9 road bridges, and their associated approach embankment earthworks are very likely to have an adverse visual and landscape impact	• Significant adverse impact on setting of Category B Listed Building (Castlehill House) and its policy woodland. • The new Culloden Road and the A9 road bridges and their associated approach embankment earthworks are very likely to have an adverse visual and landscape impact.	• Fewer heritage, visual and landscape impacts than Options 1and 2 because of the reduced scale and extent of the road and earthworks.
Traffic & Transport	**Traffic & Transport**	**Traffic & Transport**
• Provides an additional separate crossing of the A9, linking existing and future development East of the A9 to the local road network at a new roundabout by Aldi at Inshes in line with the Inverness East Development Brief, and Inshes Junction layout as indicated at public consultations. • Additional Southbound lane on A9 between the existing Raigmore Interchange on slip and the B9006 off slip will alleviate existing issues with queuing traffic on the main A9 carriageway. • Reduces projected 2036 traffic levels on the A96 legs of the Raigmore Interchange	• Provides an additional separate crossing of the A9, linking existing and future development East of the A9 to the local road network at a new roundabout by Aldi at Inshes in line with the Inverness East Development Brief, and Inshes Junction layout as indicated at public consultations. • Includes direct on and off links between the Southbound A9 and the East Link, this requires the demolition and replacement of the existing Inshes overbridge. • An additional Southbound lane on A9 between the existing Raigmore Interchange on slip and new off slip link to	• Provides no new crossing of the A9, instead the existing A9 overbridge is widened to 2 lanes in either direction to cater for the anticipated increase in traffic. • Additional Southbound lane on A9 between the existing Raigmore Interchange on slip and the B9006 off slip will alleviate existing issues with queuing traffic on the main A9 carriageway. • Reduces projected 2036 traffic levels on the A96 legs of Raigmore Interchange by some 14%. • Increases traffic over Inshes overbridge in the 2036 design year, AM Eastbound by

Option 1	Option 2	Option 3
by some 21%. • Reduces traffic over Inshes overbridge in the design year by splitting traffic across the A9 but does introduce traffic at the Aldi roundabout.	the East Link will alleviate existing issues with queuing traffic on the main A9 carriageway. • Reduces projected 2036 traffic levels on the A96 legs of Raigmore Interchange by some 23%. • Reduces traffic over Inshes overbridge in the design year by splitting traffic across the A9 but does introduce traffic at the Aldi roundabout.	39% and PM Eastbound by 30%.

APPENDIX 3 – TRAFFIC ISSUES

1. It should be recognised that, in addition to general traffic growth, planned development to the East of Inverness will generate significant increases in traffic flows such that additional capacity provided by the East Link will be required to minimise predicted congestion. Between 2014 and 2036 peak traffic flows using the A96 leg of the Raigmore Interchange are predicted to increase by 67% due to both general traffic growth and planned development. Transport Scotland is therefore promoting the East link scheme, the aim of which is to reduce the number of local trips using the trunk road network by offering an alternative local road to strip out local traffic from the trunk road network. All East Link options will mitigate the projected increase at this location with Option 1 limiting the rise to 33%, Option 2 marginally better at 30% and Option 3 seeing a projected increase of 45%. All options therefore envisage that future signalisation of this roundabout will be required. These differences are due to the relative attractiveness of the three options as an alternative route for local traffic. The traffic modelling indicates that the proposed East Link Options 1 and 2 are projected to carry relatively similar traffic flows but Option 3 would carry some 23% less traffic – ie a greater proportion of vehicles would use the existing A96/A9 route to get to/from Inshes in preference to Option 3.

2. Without network investment traffic projections for 2036 show an additional 48% more traffic wishing to cross Inshes Overbridge on Culloden Road. Here Options 1 & 2 differ significantly from Option 3. Option 1 would limit the increase to 5%, Option 2, due to the direct link to the Southbound A9, would see a reduction of some 15% from 2014 base figures but option 3 is likely to see an even greater increase of 68%, due to the link road funnelling all traffic wishing to cross the A9 over the Inshes Overbridge. The greater route choice offered by Options 1 and 2 also mean that benefits can be seen to extend further than the localised Inshes area to Longman Roundabout and Milburn Road.

3. Options 1 and 2 are clearly fundamentally different to Option 3 in how and where they join the local road network. Initial traffic modelling of Inshes Junction, commissioned by the Council, had considered only an East Link with two route options over the A9 as offered by Options 1 and 2. As Option 3 clearly concentrates traffic over Inshes overbridge detailed modelling was commissioned by the Council to determine if a viable solution for Inshes Junction can be established given the projected traffic flow distribution. This fundamental difference has been explored by comparing the implications should Option 1 or Option 3 be selected, on the basis that Option 2 would present similar, and generally less onerous, demands on the local road network than Option 1.

4. As a roundabout solution is more easily progressed this modelling work considered both a roundabout solution to Inshes as well as a full signalised junction as previously used in the public consultation exercises. The analysis examines how Options 1 and 3 compare with reference to 2014 base traffic flows. The modelling assumes that in addition to the works already undertaken, 3 lanes have been provided Westbound over Inshes overbridge in Option 1. In Option 3, 2 lanes are modelled in each direction as per Transport Scotland's proposal. If option 1 is selected we can expect Eastbound traffic to be only marginally affected but issues will develop to significantly affect Westbound traffic. Option 3 is consistently worse than Option 1 with significant issues affecting all peak time journeys.

5. With both Option 1 and Option 3 the signalisation of the junctions performs much better than the roundabout retention option. Signalisation allows more control and traffic can be passed through the network better. The modelling of Option 1 identifies issues with Westbound traffic and in the retail park but with further development work and potential further signalisation on the Southern Distributor Road, it is likely that these can be further mitigated. The modelling of Option 3 indicates that there will be large numbers of vehicles prevented from entering the network at

Caulfield Road North and from the Campus but vehicles are also held at various other locations and unable to join the network at the West end from Culcabock Road.

6. Notwithstanding the detailed analysis that provides the background to the above, it should be recognised that the modelling work commissioned by Transport Scotland does not identify such significant traffic issues with Option 3. Their modelling does however recognise the reduced traffic attraction of Option 3, issues at the Caulfield Road North and Campus junctions, and the reduced positive impact on the trunk road network. It is also apparent that the one network linkage at Inshes does limit the solutions to address traffic congestion. Taking cognisance of this it is recommended that rather than at this stage object to Option 3, that concerns be raised such that if further work is undertaken by Transport Scotland to mitigate the concerns identified in this report then consideration to adopting Option 3 should remain in recognition of the lessened environmental impacts that this Option offers.