

# A9 Dualling Dalraddy to Slochd

Stage 2 Scheme  
Assessment Report  
Volume 1 – (Part 5)  
December 2016





# Notice

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# Stage 2 Report – Overall Structure

- ❖ **Volume 1 – Main Report and Appendices**
- ❖ **Volume 2 – Engineering Figures**
- ❖ **Volume 3 – Environmental Figures**



## Part 5: Assessment Summary and Recommendation

### 22 Assessment Summary

#### 22.1 Introduction

22.1.1 The following sections give a summary of the main findings of this DMRB Stage 2 Scheme Assessment Report. The summary is based on the information provided in the Engineering Assessment (Part 2, Chapter 4 and Chapter 5), Environmental Assessment (Part 3, Chapter 6 to Chapter 19) and Traffic and Economic Section (Part 4, Chapters 20 and 21).

#### 22.2 Engineering Assessment

22.2.1 The Engineering Assessment has identified a number of factors which differentiate between the mainline and junction options, although in many cases any differences are slight.

22.2.2 The construction activities and methods that will be required for this project consist in the main, largely of conventional civil engineering operations. It is however noted there are some areas where specialist ground engineering techniques may be required due to the presence of peat and rock, the extent of which will be informed further through detailed ground investigation works. In addition, sections of the route will involve work adjacent to the Highland Mainline railway and/or in areas susceptible to flooding which will necessitate stringent construction methods to be applied. The main engineering features for this project are described below:

##### Mainline

22.2.3 The Mainline Options considered are based around either a predominantly southbound or predominantly northbound widening alignment. Option 1 is based on a southbound widening, Option 1A is predominantly southbound widening, barring a short section south of Aviemore to avoid conflicts with existing properties. Option 2 is predominantly northbound widening, barring sections where northbound widening has been previously sifted out, resulting in a composite option.

22.2.4 Mainline Option 1 has less excavated material and also requires less imported fill than Option 2, therefore Mainline 1 has lower capital costs. Additionally, Option 1 requires fewer retaining structures than both Options 1A and 2, resulting in a lower direct cost of construction.







## Junctions

22.2.5 A summary of the junction layouts options being considered at each location is outlined in Table 22.2.1, with detailed descriptions included within Part 1, Chapter 3, Section 3.1.25.

Table 22.2.1: Junction Layout Options

Option Reference	Description
<b>Aviemore South Junction Options</b>	
A02	Half Clover leaf Quadrants 1&4 (overbridge/southbound mainline widening)- Sections 1&2 (applicable to all mainline options)
A09	Diamond Left-right Stagger with Ghost Island (overbridge/southbound mainline widening)- Sections 1&2 (applicable to all mainline options)
A18	Diamond Left-right Stagger with B9152 Realigned (overbridge/southbound mainline widening)- Sections 1&2 (applicable to all mainline options)
<b>Granish Junction Options</b>	
C18	Diamond (underbridge/northbound mainline widening)– Section 5 (applicable to mainline option 2)
C21	Half Dumbbell Clover leaf (underbridge/northbound mainline widening)– Section 5 (applicable to mainline option 2)
C31	Diamond (underbridge/southbound mainline widening)– Section 5 (applicable to mainline options 1 and 1A)
C34	Half Dumbbell Clover leaf (underbridge/southbound mainline widening)– Section 5 (applicable to mainline options 1 and 1A)
<b>Black Mount Junction Options</b>	
D02	Diamond with Left-right Stagger (overbridge/northbound mainline widening) – Section 9 (applicable to mainline option 2)
D03 (Restricted Movements)	Half Diamond (North Facing Slips) (overbridge/southbound mainline widening) – Section 9 (applicable to mainline options 1 and 1A)
D07	Half Clover leaf Quadrants 2&4 (overbridge/northbound mainline widening) – Section 9 (applicable to mainline option 2)
D12	Diamond with Left-right Stagger (overbridge/southbound mainline widening) – Section 9 (applicable to mainline options 1 and 1A)
D13 (Restricted Movements)	Half Diamond (North Facing Slips) (overbridge/northbound mainline widening) – Section 9 (applicable to mainline option 2)





Option Reference	Description
D51	Half Clover leaf Quadrants 2&4 (overbridge/southbound mainline widening) – Section 9 (applicable to mainline options 1 and 1A)

- 22.2.6 All mainline options are consistent in terms of junction provision and include for new grade separated junctions at the locations of Aviemore South, Granish and Black Mount.
- 22.2.7 The junction layouts consisting of a loop or cloverleaf type arrangement have a smaller footprint and lower capital cost than the diamond layout alternative. This is primarily because the merge and diverge slip roads share the same ramp in a loop or cloverleaf arrangement, whereas a full-movements diamond layout requires four separate ramps.
- 22.2.8 The Black Mount junction location includes layouts for both full and restricted movements. The restricted movements layouts have been identified and developed based on the limited traffic volumes undertaking turning movements from the A9 northbound into Black Mount and also to the A9 in a southbound direction from Black Mount. It is acknowledged that although the traffic turning volumes are exceptionally low at Black Mount, in terms of the overall route operation on the A9, particularly with regards to winter resilience, maintenance and provision for private land access for major forestry that there is strong justification to include a full movement provision. In addition, feedback obtained from stakeholders and the general public from the consultation exhibitions indicates a strong preference towards a full grade separated junction accommodating all turning movements. Furthermore, at the Black Mount junction location there has been strong views expressed during consultation with regards to the change in junction priority between the A9 and A938 / Unclassified Road (U2400). The provision of a full grade separated junction at this location that maintains the existing priority arrangement is difficult to achieve with compliant link geometry due to the presence of a number of significant constraints.

**Local Roads and Accesses**

- 22.2.9 A summary of the local roads and accesses options being considered along the project extents is outlined in Part 2, Chapter 5, Tables 5.5.1 and 5.5.2.
- 22.2.10 The local road network is impacted by a number of the grade separated junctions where realignment is necessary. This impacts most notably at Aviemore South where junction layout option A18 requires the complete realignment of a short length of the B9152 to accommodate a change in junction priority. At the Granish location, all junction layouts have a negligible impact on the local road network. All junction layouts at Black Mount will require the realignment of the A938 and unclassified road (U2400) in order to accommodate the full grade separated junction provision. However as all the junction layouts at this location are equally affected, there is no differentiating factor.
- 22.2.11 As noted within Section 2.3 there are a total of 32No. individual accesses currently connected into the A9 carriageway. As part of the dualling proposals it is the intention that direct accesses are minimised with alternative means of access provided by either combining a number of accesses together to tie-in with a new grade separated junction, form a bridge or underpass structure over the A9, promote a parallel link road or develop a left in left out junction layout for discrete accesses where no alternatives are available.
- 22.2.12 Existing accesses are being investigated as part of a separate Tier 3 assessment which will be reported as part of the Stage 3 assessment. At this current stage, consultations have been undertaken with all key landowners and estates to gain a full understanding of how each access is used and to inform the access strategy.





### Relaxations and Departures

- 22.2.13 All Stage 2 options are a similar standard of mainline geometry and achieve a fully compliant design with no departures required at this stage. Similarly, all junction layouts have been developed to comply with the DMRB standards, with no departures identified or required to be promoted at this stage. These will however be reviewed as part of the design development during the DMRB Stage 3 assessment.
- 22.2.14 On the basis of the consistent design standards applied across the project, there are no differentiating factors identified with respect to relaxations and departures.

### Topography and Land Use

- 22.2.15 The effects of the mainline and junction options on topography and land use are considered in detail within Part 3, Chapters 8 and 12.
- 22.2.16 Due to the similarity of the mainline options and junction layouts there is very little to differentiate the options, however the overall landtake and the classification and use of adjacent land act as distinguishing factors. On this basis, Mainline Option 1 would be favoured together with the associated junctions which utilise a loop/cloverleaf layout arrangement.
- 22.2.17 It should be noted that at the Black Mount location, the junction layouts with the lowest overall landtake have been determined as those with the restricted movements (D03 and D13) which utilise only north facing slip roads. Thereafter the next junction with the lowest landtake is the loop/cloverleaf layout.

### Geotechnical and Earthworks

- 22.2.18 A summary of the preferred mainline alignment and junction options, taking due consideration of the geotechnical constraints is discussed in Part 2, Chapter 5, Section 5.9.
- 22.2.19 Overall it is noted that there are no significant differentiating factors with the mainline options, with Options 1 and 1A marginally more favourable as they are considered to require slightly less rock cuttings overall.
- 22.2.20 In terms of the junction layouts, there are no differentiating factors which have been identified between layout options.

### Hydrology

- 22.2.21 As a consequence of the similarity of the mainline options and junction layouts there is very little to differentiate the options for road drainage and watercourse crossings at this stage of the project. The mainline options are all a consistent length and adopt a similar overall footprint, therefore all options are considered to be equivalent in terms of drainage provision.
- 22.2.22 Junction layouts which are based on a smaller landtake, such as the loop / cloverleaf arrangement, are considered to be marginally more favourable as the road drainage network would be reduced in size with potential for smaller SUDS facilities.
- 22.2.23 In terms of watercourse crossings, all options are considered to be equally affected by existing watercourses and regardless of the structural solution promoted, there are no key differentiating factors which have been identified between the options.





## Structures

- 22.2.24 All the mainline options include for a significant number of structures including bridges, underpasses, culverts and retaining structures. The most significant of these are the Slochd Beag, Dulnain and Baddengorm Bridges.
- 22.2.25 Constraints present along the route extents which have been identified as requiring a structural solution to be promoted are generally consistent across the 3No. mainline options. It is however noted that mainline Option 2 will require the greatest length of retaining structures, followed by Option 1A and then Option 1. It is noted that although the earthworks footprint for Option 2 has a greater encroachment on adjacent constraints, the proposed carriageway alignments for Options 1 and 2 both directly impact residential properties in the vicinity of Lag na Caillich and Lynwilg (circa Ch. 4950). This has been considered impossible to mitigate through the use of retaining walls, whereas Option 1A, through a combination of carriageway alignment and promotion of retaining walls avoids the properties outright.
- 22.2.26 All the grade separated junction locations, consisting of Aviemore South, Granish and Black Mount require a specific structural solution to accommodate the link road and associated slip roads. The structures developed at this stage for the junction layouts are considered to be generally equivalent with no significant differentiating factors identified between options with the only exception being the Aviemore South junction option A18 which incorporates a skewed structure for the junction overbridge.
- 22.2.27 In terms of the structures criteria, mainline options 1 and 1A are considered to be more favourable options as less structures are required.

## Public Utilities

- 22.2.28 Over the scheme extents, utility apparatus is generally most densely located within the proximity of Aviemore with the largest and most significant being the Scottish Water trunk main. This follows the alignment of the A9 adjacent to the southbound verge and would be impacted by mainline options 1 and 1A which consist of predominantly southbound widening. Outwith this specific area, all the mainline options are considered to have an equivalent impact on utility apparatus across the scheme extents.
- 22.2.29 All junction layouts are considered to have an equivalent impact on utilities.
- 22.2.30 In general it is noted that there is no major or significant items of utility apparatus or assets present within the scheme extents, with the exception of the Scottish Water trunk water main adjacent and parallel to the A9 at Aviemore, which are considered to have a significantly high cost or programme impact.

## Constructability

- 22.2.31 All mainline options for the Dalraddy to Slochd scheme are similar in terms of the constructability challenges with generally similar earthworks balance and ground conditions. The main difference between the options is based on the frequency in which the proposed new carriageway crosses the existing road network.
- 22.2.32 Mainline Option 1 does not cross the existing carriageway, whilst Mainline Option 1A has 2 No. crossovers south of Aviemore. As Option 2 is a composite of Northbound and Southbound widening, 5 No. crossovers are required. It is however noted that in overall terms of the project, taking account of the entire length of 25km, the promotion of a limited number of crossovers between northbound and southbound widening is not considered to be a significant constructability issue which should be a key influence in the identification of a preferred option. The phasing of such works and the exact







arrangement and layout of traffic management required at the crossovers will be investigated and developed as part of the Stage 3 assessment.

### **Operation and Maintenance**

- 22.2.33 For the mainline options there are minimal factors which are able to differentiate the options with the exception of retaining walls. Option 1 is therefore most favourable as it has the shortest overall length requirement for retained structures.
- 22.2.34 At the junctions, there is greater element of variation in layouts. However, all layouts, with the exception of the restricted movements arrangement at Black Mount junction, are considered to provide an equal level of service from an operational and maintenance perspective.

### **Non-Motorised Users**

- 22.2.35 Refer to sections 22.3.35 to 22.3.38, Effects on All Travellers.





### Cost Estimates

22.2.36 Cost estimates have been prepared for each of the 54 mainline and junction option combinations. To establish the cost estimate for each option, the scheme was broken down into key components (e.g. structures, mainline section and side road). See Table 22.2.2 for details of cost estimate ranges for the scheme combinations. Refer to Part 1, Chapter 3, Section 3.2 for more detail.

Table 22.2.2: Scheme Cost Estimate Range (Q4 2022)

	<b>Plausible Maximum Cost</b>	<b>Plausible Minimum Cost</b>	<b>Range</b>
<b>Option 1</b>	£679,627,822	£562,501,692	£117,126,130
<b>Option 1A</b>	£682,945,782	£566,455,038	£116,490,744
<b>Option 2</b>	£700,132,478	£587,655,117	£112,477,361

22.2.37 The plausible minimum cost presented in Table 22.2.2 is based on the lowest value of junction option combination in each mainline option, and the lowest value of project risk, programme risk and optimism bias. In comparison, the plausible maximum cost is based on the greatest value for these variables applied to the most expensive junction options combination within each mainline option.

22.2.38 Overall the following conclusions in terms of costs have been determined:

- Option 2 is the most expensive, as this option contains the highest volume of retaining walls
- Option 1 is slightly cheaper than Option 1A due a slightly reduced earthworks volume requirement
- Junction layouts featuring a half-cloverleaf are cheaper than diamonds as both on and off slips can be accommodated within the same embankment, thus saving on earthworks costs.





## 22.3 Environmental Assessment

22.3.1 The main findings of the environmental assessment, focusing on key differentiators, are summarised as follows:

### Community and Private Assets

22.3.2 Mainline Option 2 results in fewest direct impacts on residential properties overall. Mainline Option 1A avoids several residential properties, to the south of Aviemore, which are directly impacted by Option 1.

22.3.3 Junction Option A02 involves least agricultural land-take and, in contrast to both of the other Aviemore South junction options, has no impact on residential properties.

22.3.4 At Granish, Junction Option C21 has the least impact on Red Stag Lodge residential property and involves least commercial forestry land-take from Strathspey Estate landholding.

22.3.5 Black Mount Junction Options D03 and D13 result in least agricultural and forestry land-take.

### Geology, Soils and Groundwater

22.3.6 No key differentiators have been identified in terms of impacts of mainline options on geology, soils and groundwater.

22.3.7 Of the Aviemore South junction options, Options A02 and A09 have lower potential for impacts on groundwater, due to reduced length of cutting, when compared to Option A18.

22.3.8 At Granish Junction Option C34 has lower potential for impacts on groundwater.

22.3.9 Black Mount Junction Options D03, D12 and D13 are predicted not to impact aquifers and have lower potential for pollution of groundwater during construction in comparison to the alternatives.

### Road Drainage and the Water Environment

22.3.10 All mainline options are assessed as having broadly similar impacts overall on the water environment. Options 1 and 1A have greater impacts in terms of localised flood risk in comparison to Option 2, however, Option 2 results in substantial impact on an existing waterbody (Loch Puladdern) and will also necessitate the realignment of a watercourse (Allt Cnapach).

22.3.11 Junction Options A02 and A09 are situated at greater distance from Ballinluig Burn than Option A18 and as such there is a lower pollution risk during construction.

22.3.12 At Granish, Junction Option C18 is the only junction option that does not directly impinge upon Allt na Criche watercourse.

22.3.13 There are no key differentiators in terms of the junction options for Black Mount.

### Ecology and Nature Conservation

22.3.14 Whilst all mainline options are assessed as having similar impacts on ecology, Mainline Options 1 and 1A result in least land-take within designated sites, areas of ancient woodland and notable habitats.

22.3.15 Junction Option A09 at Aviemore South involves the least notable habitats loss.





22.3.16 Option C34 has the least loss of ancient woodland, Annex 1 habitats and other habitats at Granish.

22.3.17 Junction Options D03 and D13 at Black Mount involve least loss of Annex 1 and other habitats as well as ancient woodland.

### Landscape

22.3.18 No key differentiators have been identified in terms of landscape impacts associated with mainline options.

22.3.19 Junction Option A18 at Aviemore South is considered least adverse in terms of landscape fit.

22.3.20 There are no differentiators in terms of landscape impacts of Granish junction options.

22.3.21 Junction Options D03 and D13 are considered least adverse in terms of landscape fit at Black Mount.

### Visual

22.3.22 There are fewer substantial residual visual impacts overall associated with Option 1.

22.3.23 Junction Option A02 has a lesser impact on visual receptors including the Duke of Gordon's Monument and Druim Mhor.

22.3.24 There are no differentiators relating to visual impacts for junction options at Granish and Black Mount.

### Cultural Heritage

22.3.25 The key differentiator in terms of impacts of mainline options on the historic environment is the direct physical impact on Tor Beag Fort Scheduled Monument which is associated with Option 2.

22.3.26 There are no differentiators in relation to junction options for Aviemore South.

22.3.27 Junction Option C18 has a lesser impact on an undesignated archaeological site in the locality in comparison with the other Granish junction options.

22.3.28 There are no known impacts on the historic environment associated with the Black Mount Junction options.

### Air Quality

22.3.29 In terms of local air quality, there are no material differences between the options.

22.3.30 In terms of regional emissions, there are no significant differences between options in the context of wider regional or national emissions.







### **Noise and Vibration**

- 22.3.31 A lower overall impact is predicted in the long term (2041) for Option 1.
- 22.3.32 There are no differentiators, relating to noise and vibration impacts, in terms of junction options at Aviemore South.
- 22.3.33 At Granish, Junction Option C31 has a lower noise impact in both the short and long term.
- 22.3.34 There are no differentiators in terms of junction options at Black Mount.

### **Effects on All Travellers**

- 22.3.35 Option 2 will result in least encroachment on core paths and other Non-Motorised Users (NMU) routes in comparison to the other mainline options. There are no key differentiators for views from the road/traveller experience.
- 22.3.36 A02 and A09 Aviemore South junction options do not encroach upon NMU Route 2, in contrast to Junction Option A18 where encroachment will result in a decrease in amenity. Options A09 and A18 are likely to be less obtrusive in views experienced by the traveller.
- 22.3.37 There are no differentiators in relation to junction options for Granish in terms of NMU impacts and views from the road.
- 22.3.38 Junction Options D02, D03, D12 and D13 at Black Mount result in lesser impacts on views from the road. There are no differentiators in terms of NMU impacts.

### **Materials**

- 22.3.39 Mainline Option 2 is assessed as having the greatest adverse impact, based on the earthworks and pavement resource quantities.
- 22.3.40 Option A02 was identified as having the lowest fill volume of the Aviemore South junction options
- 22.3.41 Option C34 had the lowest cut volume of the Granish junction options
- 22.3.42 Option D13 had the lowest fill volume of the Black Mount junction options.

## **22.4 Traffic and Economic Assessment**

- 22.4.1 The potential safety benefits of the traffic and economic performance was only marginally affected by the junction layout and mainline alignment options.
- 22.4.2 A comparison of Benefit Cost Ratio using the TUBA economic assessment program established that the economic assessment results lie in a relatively narrow band.
- 22.4.3 There is no particularly compelling economic differentiators between options. Cost is clearly an issue but more expensive schemes do not deliver significant extra benefits nor do less costly schemes have major dis-benefits. This is in line with expectations as traffic levels are generally low and no congestion is expected. Accordingly economics is unlikely to be a significant determinant for option selection, although cost and affordability are clearly important.



## 23 Preferred Option Recommendation

### 23.1 Introduction

23.1.1 This section describes the process for identifying the Preferred Option, and recommends the Preferred Option to be taken through to the DMRB Stage 3 assessment.

### 23.2 Preferred Option Assessment Process

23.2.1 All options identified in Part 1 (Section 3) of this report were assessed in accordance with DMRB guidance, and as described in Parts 2, 3 and 4 of this Report (Engineering, Environmental and Traffic and Economic Assessments). The assessment process was informed by ongoing consultation with local stakeholders, including community Drop-In events on 23<sup>rd</sup> and 24<sup>th</sup> September 2016, and Public Exhibitions held on 2<sup>nd</sup> and 3<sup>rd</sup> of February 2016 and the 16<sup>th</sup> and 17<sup>th</sup> June 2016. A Value for Money Workshop was held on 29<sup>th</sup> of June 2016 and a Preferred Route Workshop on 22<sup>nd</sup> November 2016.

23.2.2 At the Preferred Route Workshop a summary tool was used to assist in the identification of the Preferred Route. This compared the relative impact of each mainline and junction option against the others, based on various engineering, environmental and economic criteria to facilitate identification of the most favourable/lowest impact option. In addition, feedback obtained from key stakeholders and environmental consultees was evaluated and fed into the assessment process. Details of the summary tool are contained in Appendix A.

### 23.3 DMRB Stage 2 Preferred Option Recommendation

23.3.1 On the basis of the DMRB Stage 2 Scheme Assessment, it is recommended that mainline Option 1A is taken forward as the preferred option for the A9 Dualling Dalraddy to Slochd project, with local variations as described below.

23.3.2 Although Option 1A is considered as the most favourable alignment of the three assessed; the assessment report has been structured such that it details the constraints evident for each section assessed. Therefore, the assessment has allowed consideration of whether combinations of parts of the Options 1, 1A and 2 would provide benefits. Based on this, the preferred route recommended includes for two local variations on the Option 1A alignment described in Part 1, Chapter 3, Section 3.1.18. The specific constraints identified which are considered to justify the alteration to Option 1A are described in Table 23.3.1.

Table 23.3.1: Location of Mainline Constraints

Location	Chainage	Description
Alvie Site of Special Scientific Interest (SSSI)	1,550 to 1,700m	Located adjacent to the southbound carriageway, to the east of the A9, Loch Alvie is a SSSI impacted marginally by both north and southbound mainline options. It however has been determined that a mainline alignment following a predominantly northbound alignment would have a lesser direct encroachment into the site.
Druim Mhor property	2,150 to 2,250m	A private property located adjacent to the southbound carriageway with access obtained via the B9152. A9 existing access is noted not to be utilised by owners due to safety concerns.  A localised northbound variation at this location would realign the mainline carriageway away from the property reducing visual impacts.

Location	Chainage	Description
		It is noted that a northerly widening alignment in this area would potentially introduce a greater area of AWI land take and therefore the localised realignment would focus on returning to a predominantly southbound widening alignment shortly after passing the property.
Avielochan Farm	10,200 to 10,300m	<p>A private property located adjacent to the southbound carriageway with access obtained via the B9152.</p> <p>A localised northbound variation at this location would realign the mainline carriageway away from the property mitigating a direct impact with the farm.</p> <p>It is however noted that promotion of a localised northbound widening alignment would result in a loss of agricultural land and greater loss of land take within ancient woodland. Therefore the realignment in this area would be centred on the property to enable a crossover back to predominantly southbound widening at the earliest opportunity.</p> <p>In addition it is noted that a Scheduled Monument site is located on the west side of the carriageway approximately 500m beyond the property at chainage 10,700m. Therefore a changeover back to southbound widening would be included prior to this constraint.</p>

- 23.3.3 It is recognised that the incorporation of localised realignments to address the specific constraints identified would result in additional crossovers to the existing A9 carriageway being required to the mainline alignment. It is therefore proposed where practicable that in order to minimise the potential impact on constructability that the Loch Alvie and Druim Mhor constraints are combined and considered together as a single mainline variation on the basis that they are located a distance of approximately 700m apart.
- 23.3.4 Furthermore, following an evaluation of all the constraints present within the southern extents of the project, it has been considered preferable to realign the mainline carriageway to a predominantly northbound widening from the southern tie-in at chainage 0m to beyond the Druim Mhor property at chainage 2,500m or thereby.
- 23.3.5 The junction options identified and taken forward in the preferred option are as follows: a half-cloverleaf junction at Aviemore South, a half-dumbbell and cloverleaf junction at Granish and a diamond junction at Black Mount.
- 23.3.6 The key issues justifying the preferred option are as follows:
- The mainline option taken forward has the least overall impact on constraints within the corridor;
  - The half-cloverleaf layout at Aviemore South has been assessed as having the least impact on agricultural land, the best earthworks balance and lowest overall construction cost;
  - The half-cloverleaf at Aviemore South performed better than the other options assessed at Stage 2 in terms of economic appraisal;



- The half-dumbbell and cloverleaf option at Granish has been assessed as having the least impact on geology, the least impact on groundwater and the lowest cut volumes;
- The half-dumbbell and cloverleaf option at Granish has been assessed as having the least impact on the Local Development Plan policies relating to sustainable development, economic growth and materials policy;
- The restricted movement option at Black Mount was discounted for operational and winter resilience considerations; and
- Of the full movement junctions considered at Black Mount, a diamond layout was considered the most preferable, on the basis of a better landscape fit, less impacts from views from the road and less impact on ancient woodland.

### Cost Estimate

23.3.7 Table 23.3.2 provides the cost estimate range for mainline Option 1A and junctions A02 (Aviemore South), C34 (Granish) and D12 (Black Mount).

Table 23.3.2: Option 1A, junctions A02, C34 & D12 Cost Estimate Range (Q4 2022)

	Plausible Maximum Cost	Plausible Minimum Cost	Range
<b>Option 1A Jct - A02,C34 &amp; D12</b>	£665,328,000	£575,378,000	£89,950,000

23.3.8 A review has been undertaken to ensure that the cost estimate remains accurate and representative of the preferred option recommended including the proposed northbound variants. Table 23.3.3 provides the cost estimate range for the preferred route including the northbound widening variants as recommended.

Table 23.3.3: Preferred Route Option Cost Estimate Range (Q4 2022) Incl mainline variations

	Plausible Maximum Cost	Plausible Minimum Cost	Range
<b>Option 1A Jct - A02,C34 &amp; D12 Incl localised northbound widening variations</b>	£664,380,000	£574,510,000	£89,870,000







## 23.4 **DMRB Stage 2 Preferred Option Conclusion**

23.4.1 AMJV recommends that Mainline Option 1A is taken forward, in conjunction with the 2No. northbound widening variations to the mainline in the vicinity of Loch Alvie (encompassing Druim Mhor) between chainage 0m and 2,500m and at Avielochan between chainage 10,200m and 10,300m.

23.4.2 The associated junctions recommended for inclusion in the preferred option are:

- Aviemore South: Option A02 – Half Cloverleaf
- Granish: Option C34 – Half Dumbbell Cloverleaf (southbound mainline widening)
- Black Mount: Option D12 – Diamond (southbound mainline widening)





## 23.5 **Stage 3 Key Considerations**

- 23.5.1 During Stage 3 of the assessment process the Preferred Option will be subject to design development, including refinement of the mainline and side road alignments, local accesses, junction alignment, and sustainable drainage elements. Impacts on the environment will be assessed in detail and mitigation measures proposed and developed as necessary to remove or minimise impacts.
- 23.5.2 Survey work will continue throughout the Stage 3 period to inform the ongoing design and assessment, specifically ground investigation works, lighting assessment at Granish Junction and environmental surveys. Further stakeholder consultation will continue throughout the Stage 3 period with local landowners including estates, statutory bodies, Community Councils and any other affected parties in order that all inputs can be taken into account in the developing design.
- 23.5.3 The following key issues have been identified by AMJV as requiring specific focus as part of the preferred option development and Stage 3 assessment:

### **Grade Separated Junction Design Refinement**

- Design development
- Consultation

### **Grade Separated Junctions – Link Roads**

- At-grade junction form and layout between link roads and existing network
- Junction priority between link roads and tie-in

### **Tier 3 Accesses**

- Estates & Landowners
- NMU Route Integration

### **Tier 2 Junction - Slochd**

- Options study
- Consequences of closure
- U2400 bridge implications (refurbishment or new construction)
- Consultation

### **Structures**

- Identification of structural form for new structures
- Review of existing structures to understand extending / replacement options
- Preparation of an outline Approval in Principle (AIP) for relevant structures
- Review extents of proposed retaining walls, reducing through steepened earthworks

### **Ground Investigation Approach**

- Extent and detail of further GI works and rock mapping/assessment
- Pavement details (cores)





### Geometry Departures

- Mainline alignment at Slochd Summit (potential for introducing localised symmetrical widening to mitigate rock encroachment)
- Mainline alignment at Slochd Beag (reduce extent of rock encroachment)
- Investigate opportunities for reduced carriageway cross-section at pinch points (Aviemore South, MacDonald Highland Resort and Slochd Summit).

### Layby Strategy

- Standard laybys
- Enhanced laybys
- Public transport integration - Carrbridge

### NMU Strategy

- Rationalisation of existing crossings (developed in conjunction with Tier 3 accesses)
- Grade separated junction shared use facilities
- Consultation with stakeholders

### Drainage

- Development of SuDS facilities(temporary and permanent)
- Consideration of appropriate access provisions
- Consultation with SEPA

### Earthworks

- Adjustments to side slopes for improved landscape fit
- Detailed design refinement and modelling (update to baseline reference)
- Mass haul considerations (evaluated in sections defined by physical constraints)
- Slochd Beag rock cutting
- Slochd Mòr embankment





## Appendix A

### Preferred Route Workshop Summary Tool





A9 Dalraddy to Slochd

Stage 2 Assessment - Preferred Route Workshop

Appendix A Options Comparison Table - Preferred Route Recommendation Technical Note (A9P11-AMJ-HGN-Z\_ZZZZ\_XX-RP-RD-0014)

<b>FAVOURABLE</b> (Most Favourable or Least Detrimental)
<b>NEUTRAL</b> (relatively insignificant variance between Options)
<b>LEAST FAVOURABLE</b> (Least Favourable or Most Detrimental)

			Relative Option Impact																		
			Mainline			Aviemore South			Granish				Black Mount								
Main Assessment Criteria	Sub Criteria / Assessment	Explanation of Criteria	1	1a	2	A02	A09	A18	C18	C21	C31	C34	D02	D03	D07	D12	D13	D51	Comment		
<b>Engineering</b>	Local Roads/Accesses	The impact on local roads and accesses categorised under the definitions of Tier 2 and Tier 3 which connect directly with the A9 carriageway or alternatively run adjacent to the A9 carriageway.	Least Favourable	Neutral	Favourable	Neutral	Neutral	Least Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	In terms of impact to local roads, it is noted that all mainline options encroach on the B9152 south of Aviemore, with Option 2 having least impact. No other sections of local roads are affected by the mainline options. At Aviemore South, Option A18 has a significant impact requiring the realignment of the B9152 and change in junction priority. At Black Mount all junctions impact on the A938 and U2400 requiring a generally equivalent length of carriageway realignment.  Provision of accesses and maintenance of existing accesses will form part of the DMRB Stage 3 assessment. It has been considered that all mainline and junction options allow for a similar level of access with no key differentiating factors.	
	Departures from Standard	All mainline and junction options have been designed to minimise compliance with DMRB standards, minimising the need for design departures to be applied	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	All options adopt a consistent design standard, incorporating no design departures. There are no differentiating factors identified.	
	Topography & Land Use	Within the corridor the existing topography and land use varies considerably over the project extent. All options will require localised significant earthworks that can be constructed with conventional construction techniques. It is noted that the northern extents of the project within the area of Slochd has challenging topography with steep rock outcrops and profiles.	Neutral	Neutral	Least Favourable	Favourable	Neutral	Least Favourable	Neutral	Favourable	Neutral	Favourable	Least Favourable	Favourable	Neutral	Least Favourable	Favourable	Neutral	Neutral	Mainline Options 1 and 1a utilise land located between the A9 and HML railway which is considered by the major landowner to be less functional for forestry operations.  Junction options incorporating loop arrangements have a smaller overall footprint. Noted that restricted movements junctions at Black Mount (D03 & D13) are considered favourable on the basis of the reduced land take and overall footprint.	
	Geotechnics & Earthworks	The scheme involves significant earthworks volumes, albeit the mainline options are generally well balanced between bulk cut and fill requirements. Within the project extent there are areas of peat deposits, within the vicinity of Black Mount and significant rock present at Slochd which will result in challenging construction. Specific techniques for working at Slochd to manage the rock will be explored as part of the DMRB Stage 3 assessment. Impacts considered in relation to watercourse crossings and SUDS road drainage provisions.	Favourable	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Least Favourable	Favourable	Neutral	Least Favourable	Favourable	Neutral	Mainline Options 1 and 1a marginally more favourable as they are considered to have less impact on rock cuttings.  At the Black Mount location, junction layouts with the smaller footprints are considered to be more favourable with reduced earthworks and encroachment into areas of peat.	
	Hydrology		Neutral	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Favourable	Neutral	Favourable	Least Favourable	Favourable	Neutral	Least Favourable	Favourable	Neutral	No differentiating factors have been identified for the mainline options.  Junction layouts based on a smaller land take, such as the cloverleaf, are considered to be marginally more favourable as the road drainage network would be reduced in size with potential for smaller SUDS facilities.	
	Structures	All options include for a significant number of structures including bridges, underpasses and retaining structures. The most significant of these are the JNo. G51 structures, Duilainn Bridge, Baddengorn Bridge, Slochd Beag Bridge and the engineered solution at Slochd Mòr	Neutral	Neutral	Neutral	Neutral	Neutral	Least Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Least Favourable	Neutral	Neutral	Least Favourable	All mainline options are considered to require similar structural solutions, with the only notable differences being the length of retaining walls. On the basis that the walls are a very preliminary design and the margins between the lengths are so small, it is not considered that they will be a differentiating factor.  At the junction locations, Aviemore South (A18) has the largest span and will require to be supported on bearings due to the skew and the length of structure. At Black Mount, the junctions consisting of a cloverleaf layout are noted to have the largest spans and therefore considered as least favourable.	
	Utilities	Considers the impact of underground and overhead Public Utilities within the extents of the project.	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	A Scottish Water trunk main follows the alignment of the A9 adjacent to the southbound verge within the vicinity of Aviemore. This is considered as one of the major utility assets and would be impacted most significantly by mainline options 1 and 1a.  Junction layouts are considered to have a consistent impact on utility apparatus.	
	Constructability	The key constraint which influences the constructability and phasing of the mainline is most notably the quantity of cross-overs (Where proposed A9 footprint crosses the existing A9).	Favourable	Neutral	Least Favourable	Favourable	Neutral	Least Favourable	Neutral	Favourable	Neutral	Favourable	Least Favourable	Favourable	Neutral	Least Favourable	Favourable	Neutral	Neutral	Mainline option 1 is favoured as it requires no cross-overs to be promoted, compared with 2No. for option 1a and 5No. for Option 2.  Junction layouts comprising of a smaller footprint are considered more favourable.	
	Operation & Maintenance	Operation and maintenance considerations takes account of maintenance intervention to structures, encompassing bridges, underpasses, culverts and retaining walls as well as drainage systems and facilities provided as part of the SUDS system. In addition it also factors in operational performance of the trunk road network.	Neutral	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Favourable	Neutral	Favourable	Neutral	Least Favourable	Favourable	Neutral	Least Favourable	Favourable	In terms of O&M, all mainline options are considered to have an equivalent level of impact with marginal differences between carriageway provision.  Junction layouts comprising of a smaller footprint are considered more favourable in terms of maintenance as the overall size and length of asset is reduced. Black Mount junction layouts (D03 and D13) although comprising of the smallest land take values are considered unfavourable due to the significant operational constraints it imposes on the network through the reduced turning movements.	
NMU's	Considers the effects of the mainline and junction options on all travellers, including NMUs. This criteria is considered in detail within Part 3, Chapter 17 (Effects on All Travellers).	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Least Favourable	Neutral	Least Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	The most notable NMU route within the study area is NCN 7. All options will have very similar technical requirements for accommodating this route with no differentiating factors identified between the options. NMU routes within the vicinity of Aviemore, such as the orbital route are impacted most significantly by the southbound widening option.  Junction Options C21 & C34 at Granish are considered to be less desirable for NMUs due to the dumbbell layout.		
<b>Environment / Sustainability</b>	Community & Private Assets	Considers land-take in relation to a range of land use types including residential property, commercial property, community land, development land, agricultural land holdings, commercial forestry and sporting estates.	Least Favourable	Neutral	Favourable	Favourable	Neutral	Least Favourable	Least Favourable	Favourable	Least Favourable	Neutral	Least Favourable	Favourable	Least Favourable	Neutral	Favourable	Least Favourable	Mainline Option 2 results in fewest direct impacts on residential properties with Option 1A performing better than Option 1 due to the 'hybrid section' to the south of Aviemore which avoids several residential properties. Option A02 is identified as the most favourable junction option at Aviemore South by virtue of having the least agricultural land take and no impact on residential properties. Junction Option C21 is most favourable at Granish as it has the least impact on Red Stag Lodge residential property and involves least commercial forestry land take from Strathspye Estate. At Black Mount junction options D03 and D13 are most favourable in terms of resulting in least agricultural and forestry land take.		
	Geology, Soils & Groundwater	Considers impacts on geodiversity, economic minerals, historic land contamination and soils including Priority Peatlands. Impacts on groundwater resources including public water supplies (PWS) and Groundwater Dependent Terrestrial Ecosystems (GWDETs) are also considered.	Neutral	Neutral	Neutral	Favourable	Favourable	Least Favourable	Least Favourable	Least Favourable	Least Favourable	Favourable	Least Favourable	Favourable	Least Favourable	Favourable	Favourable	Least Favourable	No key differentiators have been identified in terms of mainline alignment options. Junction Options A02 and A09 are most favourable at Aviemore South as there is lesser potential for impacts on groundwater due to the reduced length of cutting when compared to Option A18. At Granish, Option C34 is most favourable in terms of lower potential for impacts on groundwater. All At Black Mount junction options D03, D12 and D13 are preferable as no impact on aquifers is predicted and there is lower potential for pollution of groundwater during construction.		
	Road Drainage & the Water Environment	Considers impacts on surface water quality (standing water and watercourses), hydromorphology, flood risk and surface water led PWS.	Neutral	Neutral	Neutral	Favourable	Favourable	Least Favourable	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	The most advantageous mainline alignment option is not discernible - Options 1/1A have greater impacts in terms of localised flood risk in comparison to Option 2, however, Option 2 will result in substantial impact on an existing waterbody (Loch Pulisden) and will also necessitate the realignment of a watercourse (All Crapach). Junction options A02 and A09 are most favourable at Aviemore South as they are at greater distance from a watercourse (Ballinluig Burn). At Granish junction C18 is favoured as it does not directly impinge upon Allt na Criche watercourse. There are no key differentiators in terms of the junction options for Black Mount.	
	Ecology and Nature Conservation	Considers terrestrial and aquatic ecological receptors including designated sites, terrestrial and freshwater habitats, plants and species.	Favourable	Favourable	Neutral	Neutral	Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Favourable	Neutral	Favourable	Neutral	Least Favourable	Favourable	Least Favourable	Mainline Options 1/1A result in least land take within designated sites, areas of ancient woodland and notable habitats. Junction Option A09 at Aviemore South is favourable in that it involves the least notable habitats loss. Option C34 is the most favourable of the Granish junction options as it has the least loss of ancient woodland, Annex 1 habitats and other habitats. Similarly, junction options D03 and D13 at Black Mount involve least loss of Annex 1 and other habitats as well as ancient woodland.		
	Landscape	Considers impacts to designated landscapes, landscape character and the Special Qualities of the landscape as defined by the Cairngorms National Park Authority (CNPA)	Neutral	Neutral	Neutral	Least Favourable	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Favourable	Least Favourable	Neutral	Favourable	Least Favourable	No key differentiators have been identified in terms of mainline options. Junction option A18 at Aviemore South is considered least adverse in terms of landscape fit. There are no differentiators enabling the identification of a most favourable junction option at Granish. Junction options D03 and D13 are considered least adverse in terms of landscape fit at Black Mount.	
	Visual	Considers anticipated changes to the view and/or visual amenity experienced by a range of receptors including but not limited to settlements, buildings, roads, railways, footpaths and cycleways and outdoor recreational spaces.	Favourable	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	There are fewer substantial residual visual impacts overall with Option 1. Junction A02 is considered most favourable at Aviemore South given its lesser impact on receptors including the Duke of Gordon's Monument and Duilainn Mhor. There are no differentiators which would enable identification of favoured junction options at Granish and Black Mount.
	Cultural Heritage	Considers impacts on archaeological remains, built heritage and historic landscapes.	Favourable	Favourable	Least Favourable	Neutral	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Options 1/1A are most favourable as, in contrast to mainline Option 2, there is no direct physical impact on Tor Beag Fort Scheduled Monument. There are no differentiators in relation to junction options for Aviemore South and Black Mount, however, Option C18 can be considered most favourable at Granish given its lesser impact on an undesignated archaeological site in the locality.
	Air Quality	Considers the impacts on local air quality and regional emissions during the operational phase.	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	No key differentiators in relation to mainline alignment or junction options have been identified.
	Noise and Vibration	Considers noise and vibration impacts on sensitive receptors such as residential dwellings, schools and community facilities.	Favourable	Neutral	Least Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Option 1 is most favourable as a lower overall impact is predicted in the short term (2026) and long term (2041). There are no differentiators in terms of junction options at Aviemore South and Black Mount but Option C31 is considered favourable at Granish due to a lower noise impact in both the short and long term.

A9 Dalraddy to Slochd

Stage 2 Assessment - Preferred Route Workshop

Appendix A Options Comparison Table - Preferred Route Recommendation Technical Note (A9P11-AMJ-HGN-Z\_ZZZZ\_XX-RP-RD-0014)

Relative Option Impact Key	FAVOURABLE (Most Favourable or Least Detrimental)
	NEUTRAL (relatively insignificant variance between Options)
	LEAST FAVOURABLE (Least Favourable or Most Detrimental)

Main Assessment Criteria	Sub Criteria / Assessment	Explanation of Criteria	Relative Option Impact															Comment	
			Mainline			Aviemore South			Granish				Black Mount						
			1	1a	2	A02	A09	A18	C18	C21	C31	C34	D02	D03	D07	D12	D13		D51
	Effect on Travellers	Considers impacts on journeys made by pedestrians, cyclists, equestrians (referred to as Non-Motorised Users (NMUs)) and vehicular travellers. Also includes consideration of changes to the view from the road for vehicular travellers.	Neutral	Neutral	Favourable	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Favourable	Favourable	Neutral	Favourable	Favourable	Neutral	Option 2 is considered the most favourable of the mainline alignment options in terms of impacts on NMUs, i.e. there is less encroachment on core paths and other NMU routes). There are no key mainline alignment differentiators for views from the road/traveller experience. A02 and A09 Aviemore South Junction options are most favourable as there is no encroachment on NMU Route 2 (and accompanying decrease in amenity) with these options. There are no differentiators in relation to options for Granish Junction and Black Mount Junction in terms of NMU impacts. Options A09 and A18 are likely to be less obtrusive in views experienced by the traveller. There are no differentiators in relation to views from the road at Granish but options D02, D03, D12 and D13 at Black Mount are most favourable given lesser impacts on views from the road.
	Materials	Compares the quantities of material required to construct the scheme and the generation / management of waste on site and considers potential impact on local waste management facilities.	Neutral	Neutral	Least Favourable	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Favourable	Neutral	Consideration of the anticipated materials resources and waste streams did not identify a most favourable option for either the mainline or junctions, but mainline Option 2 was identified as the option with the greatest adverse impact. In relation to junction options, Option A02 was identified as having the lowest fill volume of the Aviemore South options; Option C34 had the lowest cut volume of the Granish junction options; and Option D13 had the lowest fill volume of the Black Mount options.
	Integration with local plans and policies	Considers conformity with national, regional and local planning policy.	Favourable	Favourable	Least Favourable	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Favourable	Neutral	Favourable	Neutral	Neutral	Favourable	Neutral	Options 1/1A can be considered the most favourable mainline alignment options as Option 2 is in greater conflict with Local Development Plan policies relating to ecology and nature conservation, cultural heritage, resources and materials. Junction Option A02 is most favourable at Aviemore South due to lesser conflict with LDP natural heritage policy. At Granish, junction Option C34 is considered most favourable as there is less conflict with LDP sustainable development, economic growth and materials policies. Junction Options D03 and D13 emerge as most favourable at Black Mount due to lesser conflict with LDP natural heritage policy due to lesser impact on ancient woodland.
Economic Performance	Present Value of Benefits (PVB) Ranking	Considers the benefits arising through savings in journey time, fuel, vehicle operating costs, etc. compared to the Do Minimum option.	Neutral	Neutral	Neutral	Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Favourable	Least Favourable	Neutral	Favourable	Neutral	Least Favourable	Neutral	Least Favourable	
	Accident Benefits Ranking	Considers the cost savings arising from the reduction in accidents compared to the Do Minimum option.	Neutral	Neutral	Neutral	Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Favourable	Least Favourable	Neutral	Favourable	Neutral	Least Favourable	Neutral	Least Favourable	
	Total Present Value of Benefits Ranking (PVB+Accidents)	Combines the general benefits and accidents benefits as above, and compares this to the Do Minimum option.	Neutral	Neutral	Neutral	Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Favourable	Least Favourable	Neutral	Favourable	Neutral	Least Favourable	Neutral	Least Favourable	
	Present Value of Costs (PVC) Ranking	The additional cost to the government compared to the Do Minimum (includes construction, maintenance and operational costs).	Favourable	Neutral	Least Favourable	Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Neutral	Favourable	Neutral	Favourable	Neutral	Least Favourable	Neutral	Least Favourable	
	Net Present Value (NPV) Ranking	Total costs, less total benefits (as above)	Favourable	Neutral	Least Favourable	Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Favourable	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	
	Final BCR	The ratio of total benefits to total costs.	Favourable	Neutral	Least Favourable	Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Favourable	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	
Stakeholders	Considers the overall views and comments received on the mainline and junction options from a range of	Seafield & Strathopey Estate	Favourable	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Least Favourable	Neutral	Neutral	Least Favourable	Neutral	Neutral	Notwithstanding a general overall preference for predominantly southbound mainline widening, the estate have highlighted the significant impact of southbound widening to the Avielochan Farmhouse and a preference for northbound widening at this location.
		Kinrara Estate Partnership (KEP)	Neutral	Neutral	Neutral	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	KEP have indicated a preference at the southern extent of the project for northbound widening as the A9 passes the Drum Mhor property and southbound by Lymnig farmhouse.
		Red Stag Lodge	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Least Favourable	Least Favourable	Least Favourable	Least Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Junction A02 considered favourable by KEP due to reduced landtake. Landowners of Red Stag Lodge have previously force ranked the junction options in order of preference. However in recent consultation with the landowners, they have stated that all junctions layouts at Granish are considered equally unacceptable and render their property unusable.
		MacDonald Highland Resort	Least Favourable	Least Favourable	Favourable	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Preference indicated for northbound mainline widening along the extent of the Highland Resort due to the more significant impact southbound widening would have on the resort. Direct impact noted with utility supplies. No preference has been specified in respect of junction layouts.
		Community Councils	Neutral	Neutral	Neutral	Favourable	Neutral	Least Favourable	Neutral	Favourable	Neutral	Favourable	Neutral	Least Favourable	Least Favourable	Neutral	Least Favourable	Least Favourable	The focus on feedback from CC's has been centred around the junction layouts with comments principally aimed at the quantity of T junctions incorporated into the layouts and where priority from stub accesses is considered from a traffic movements perspective to be incorrect. Leading to confusion and potential safety issues. These issues are equally applicable to all junction layouts proposed and do not act as a differentiator. The CC's have universally acknowledged that the Black Mount restricted movements layout was a unfavourable option imposing network restrictions and winter resilience issues. Junctions options at Granish received little support with the junction between the A95 and B9152 receiving most comment and criticism as a consequence of maintaining the existing priority movement. Minimal comments on Aviemore South, with the general feedback indicating that the loop type arrangement (A02) most favourable. Option A18 was considered to be problematic and would increase vehicle speeds and potential accident rate on the B9152 on approach to Aviemore.
		Councillors	Neutral	Neutral	Neutral	Favourable	Least Favourable	Neutral	Neutral	Favourable	Neutral	Favourable	Neutral	Least Favourable	Neutral	Neutral	Least Favourable	Neutral	No preference indicated for the mainlines. Aviemore south layout A02 considered most favourable with opportunity to promote full loops as opposed to a cloverleaf configuration stated as area to explore. Reconfiguration of the junction priority offered by layout A18 commended. Half dumbbell cloverleaf preferred layout on the basis that roundabout considered to work well in this location with no concerns regarding lighting the junction. Concern however raised over the form of the at-grade junction between the A95 and B9152 with a strong view that this should be significantly improved due to high % of HGVs. Restricted movements at Black Mount noted as unfavourable due to winter resilience issues. Challenge raised regarding change of junction priority between the A938 and U2400 and also in the promotion of stub access points.
		General Public	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Neutral	Least Favourable	Neutral	Neutral	Least Favourable	Neutral	On the basis of feedback and comments received at the June 2016 exhibition, there is a mixed view across the options with no clear preferred option. The focus from the general public has been on junction locations with very limited comments received in respect to the mainline options. At the Black Mount location, the restricted movements junction layouts are generally unsupported due to the turning restrictions and winter resilience issues created. The overarching comments that have been consistently emphasised is the provision of stub access points having priority over main A9 traffic at junction link roads and to ensure that the priority movements catered for at Granish and Black Mount are taken into account. These comments although significant do not act as differentiators between the junction layouts.

