

A9 Co-Creative Process: “The Big Decide” Report

Executive Summary

This paper summarises the results of a public vote on routes for the dualling of the A9 between the Pass of Birnam and the Tay crossing, the culmination of the A9 Co-Creative Process.

In 2017, a partnership between Transport Scotland and the Birnam to Ballinluig A9 Community Group initiated a co-creative process to propose solutions to the dualling of the A9 between Birnam and the Tay crossing. The process aimed to agree a design which meets the objectives of the community and Transport Scotland, as well as taking into account the needs of stakeholders such as road users, statutory bodies and others. The process was open to everyone, and the community group has been involved in each stage.

From January 2018, through a five stage co-creative process the community, including children and young people, suggested ideas for the A9 dualling and associated infrastructure, and the most popular of these ideas, as voted for by the community, were used to create a short-list of four ‘Whole Route Options’. In the final stage, Stage 5, members of the public were invited to rank the four short-listed routes in order of preference and to vote for one of three related junction options at Birnam/Murthly Castle.

The four whole route options selected for the final voting were:

- three ‘online’ routes (Routes A, B and D) which would follow the line of the existing A9 (but partly at lower level involving a cut and cover tunnel or underpass) with junctions at Dunkeld, Dalguise and the Hermitage, and the retention of the Dunkeld & Birnam railway station, and
- one ‘offline’ route (Route C) which consisted of a 2.8km tunnel to the west of the existing A9 with junctions at Dalguise and the Hermitage, and the retention of the Dunkeld & Birnam station.

The online options had varying lengths of tunnel with Route A incorporating a 1.5km tunnel, Route B a 450m tunnel and Route D an underpass of up to 150m. To complete the whole route, three options for junctions at the Birnam and Murthly Castle end of this section were also offered: a restricted movement grade-separated junction at Birnam; a full movement grade-separated junction adjacent to the current access at Murthly Castle; or a roundabout at Birnam.

Over the voting period, between 23rd June and 2nd July 2018, 720 people voted online or submitted voting cards. Voting was open to the public and the number of votes received represented a very strong turnout relative to the size of the community. The rankings were aggregated into total scores for each of the four short-listed routes to determine the preferred route.

The Result

The online route (Route A) incorporating a 1.5km tunnel commencing in the area of the existing junction of the A9 with the B867 and Perth Road at Birnam and terminating in the area of the existing junction with the A923 and A822 at Little Dunkeld (Diagram 1) had the highest score, attracting 37.4% of the total of all scores across the four routes and was the preferred option. Route A also attracted 45% of the first place votes recorded. Routes B, C and D attracted 23%, 22.3% and 17.3% of the total of all scores respectively. The full voting figures and scores can be found in Table 2 (Section 4) of this report.

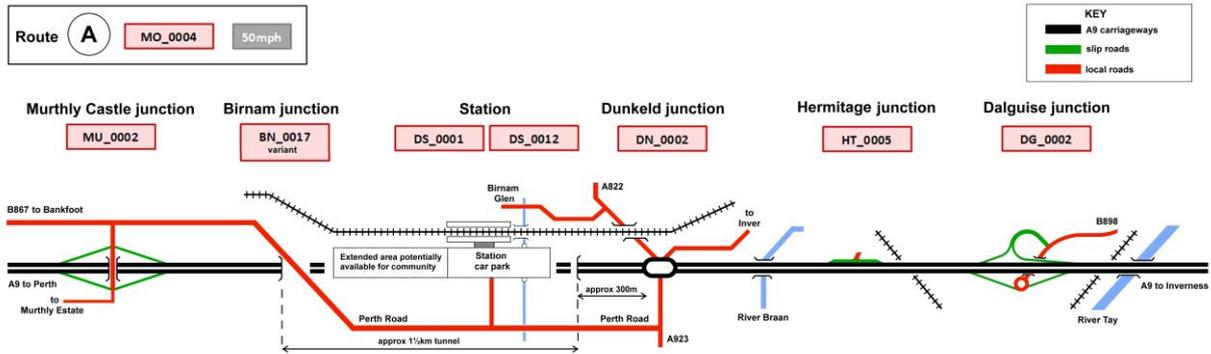


Diagram 1 – Route A / Junction 1

To complete the whole route, voters expressed a clear preference to incorporate a full movement grade-separated junction at Murthly Castle, to the south of Birnam, to replace the existing Birnam junction. This option attracted 68% of the votes for junctions compatible with that route.

The A9 Co-Creative Big Decide

1.0 Introduction

This paper outlines the context of the A9 Co-Creative (Section 2) and then summarises the results of a public vote on a short-list of whole routes and junctions at Birnam/Murthly Castle in Stage 5 (Section 3) - the culmination of this process known as “The Big Decide”. The paper explains the voting process, notes the participation and sets out a summary of results in Section 4. Appendix 1 sets out the voting methodology in detail, Appendix 2 outlines the objectives established by both parties in the Co-Creative Process, and Appendix 3 is a copy of the voting card used during the Big Decide.

2.0 Co-Creative Process Outline

The A9 Dualling Project between Perth and Inverness is a national development led by the Scottish Government. Following a period of engagement between Transport Scotland (TS) and the communities of Dunkeld and Birnam on the section of the route between the Pass of Birnam and Tay Crossing in early 2016, the Birnam to Ballinluig A9 Community Group (A9CG) was formed to represent the interests of the communities in this area.

In 2017, TS and the A9CG formed a partnership to lead a Co-Creative design process. Prior to the co-creative process, the A9CG: conducted a Community Survey; ran a series of community workshops and a public event, the ‘Big Ask’; and worked with the Children’s Parliament to engage children at The Royal School of Dunkeld. Through these initiatives, the community’s priorities and objectives for the A9 Co-Creative Process were established. Alongside this, TS had their own set of objectives for the A9 dualling. Both these sets of objectives can be found in Appendix 2.

There were five stages in the A9 Co-Creative process:

- In Stage 1, ideas for routes and junctions were gathered from the community. Some people submitted complete routes, others submitted ideas for a particular junction.
- In Stage 2, the Co-Creative team identified options from the ideas submitted and those that met the safety standards were progressed to Stage 3.
- In Stage 3, these ideas were developed in more detail and members of the community were invited to consider the options against the community objectives and comment on the designs.
- At Stage 4, the options were voted on by the community to establish the community’s order of preference or ranking for individual routes and junctions.
- At Stage 5, the Stage 4 ranking results were used to build a short-list of four whole route options for A9 dualling from the Pass of Birnam to the Tay Crossing.

3.0 Stage 5 Voting on Routes and Junctions

The voting in the last stage of the A9 Co-Creative process, Stage 5, represented the culmination of the previous four stages in which community-originated ideas were short-listed, voted on as separate spatial elements by the community, and constructed into whole route designs. These whole route designs were based on their order of preference as expressed by the community in Stage 4 for each spatial element. In brief, top-ranked routes and junctions from Stage 4 were integrated to form whole routes in Stage 5. The exception was the Birnam junction where Stage 4 ranking preferences indicated that the top three junctions chosen by voters were so closely matched that they should all be offered as choices with each of the routes where they would be compatible.

The four whole routes consisted of the top three online and the top offline routes from the Stage 4 voting process. These were the four routes most preferred by the community. More information on the overall process and the building of ‘whole route options’ is available on the [A9 Co-creative website](#). The majority of constituent spatial elements in the online routes were replicated across each of the three online options, given their clear majority in the voting outcome from Stage 4. These included:

- the retention of the Dunkeld & Birnam station in-situ, with a connection to Station Road by means of a lowered A9 and a cut and cover tunnel
- a roundabout at Dunkeld
- a left-in, left-out junction at the Hermitage
- a grade-separated junction at Dalguise

However, the tunnel length was a differentiating factor across the three online routes, with a 1.5km tunnel (Option A), a 450m tunnel (Option B), and an underpass up to 150m (Option D) proposed. The offline route consisted of a 2.8km tunnel west of the current A9, utilising the same Hermitage and Dalguise junctions as indicated in the online options, however a junction was not found to be practicable at Dunkeld.

In addition, a junction choice was offered for Birnam access at the southern end of this whole route design, with a full movement grade-separated junction adjacent to the current access to Murthly Castle (Junction 1), a restricted movement grade-separated junction at Birnam (Junction 2), and a roundabout at Birnam (Junction 3). The routes and junctions are detailed further in Table 1, where the term ‘ranking’ refers to voting in Stage 4.

Whole Route	
Option A	Option A includes the highest ranking mainline option (MO 0004) which consists of an online route with a 1.5km tunnel commencing in the locality of the existing left/right staggered priority junction with the B867 and Perth Road at Birnam, and terminating in the locality of the existing right/left staggered priority junction with the A923 and A822 at Little Dunkeld. Station Road to connect to the existing Dunkeld & Birnam station and accommodate new parking facilities.
Option B	Option B was based on the second highest ranking mainline option (MO 0013) and is an online route consisting of a lowered A9 starting in the vicinity of the Birnam Junction continuing to Dunkeld with a 450m tunnel proposed in the immediate vicinity of Dunkeld & Birnam station, this will allow Station Road to connect to the existing Dunkeld & Birnam station and accommodate new parking facilities.
Option C	Option C is the third highest ranking mainline option (MF 0003), an off-line route consisting of a 2.8km tunnel to the west of the current A9, commencing in the locality of the existing left/right staggered priority junction with the B867 and Perth Road at Birnam and terminating in the locality of the existing right/left staggered priority junction with the A923 and A822 at Little Dunkeld. Access to Dunkeld & Birnam station would remain unchanged.
Option D	The fourth highest ranking mainline option (MO 0002) consists of an online route with a lowered A9 in the immediate vicinity of Dunkeld & Birnam station with an underpass, up to 150m in length. Station Road to connect to the existing Dunkeld & Birnam station and accommodate new parking facilities.
Junction	
Junction 1	Full movement grade-separated junction adjacent to the current access to Murthly Castle
Junction 2	Restricted movement grade-separated junction at Birnam, with a northbound exit slip road and a southbound entry slip road.
Junction 3	At-grade roundabout on the A9 at Birnam

Table 1 - Whole Route and Junction Detail

4.0 Summary of Data and Voting

Voting was officially launched at the Big Decide event on the 23rd June. This was a public event to present and facilitate discussion of the short-listed routes, with voting remaining open until midnight on the 2nd July. Voting was offered in both physical (paper and email) and digital online formats. There were also dedicated activities to encourage children and young people to vote at Breadalbane Academy and at the Big Decide event. Appendix 2 sets out more detail on the voting and counting process. Appendix 3 provides a copy of the voting card.

In total 720 voters submitted valid votes, with 259 voting online and 461 posting voting cards or submitting votes by email. Through the validation process, two paper voting cards were identified as duplicates of online voting records and were not counted, and one was deemed invalid due to having no preferences indicated. This number of invalid papers is considered to be low for such a process and this was due to both the low incidence of voter error, and the application of the judgements outlined in Appendix 2, which allowed for the maximum number of votes to be validated.

Table 2 provides a summary of the results of the full vote undertaken at the conclusion of Stage 5 of the A9 Co-Creative process.

	Total score	%	1's	2's	3's	4's	Junct. 1 (Full movement at Murthly)	Junct. 2 (Restricted Movement at Birnam)	Junct. 3 (Roundabout at Birnam)
Route A (online 1.5km tunnel)	1771	37.4	323	122	52	9	331	156	(not compatible)
Route B (online 450m tunnel)	1090	23	110	167	69	11	170	130	36
Route C (offline)	1053	22.3	191	42	34	95	362	(not compatible)	(not compatible)
Route D (online <150m underpass)	818	17.3	95	55	105	63	158	84	53

Table 2 – Summary of Stage 5 Voting Results. Note: the preference columns 1-4 are numbers of votes, not scores. Preferences 1-4 scored 4-1 respectively.

As noted in Table 2, Route A, an on-line route with a 1.5km tunnel attracted 37.4% of the total scores across the four routes and was the most preferred option. It is also worth noting that Route A attracted 45% of the first place votes recorded. Routes B, C and D attracted 23%, 22.3% and 17.3% of the scores respectively. Along with Route A, voters expressed a clear preference to incorporate a full movement grade-separated junction at Murthly Castle, to the south of Birnam, with this attracting 68% of the votes for junctions compatible with that route.

Appendix 1: Voting Methodology and Analysis

1.1 Voting Methodology

The ranking-based [Borda Count](#) methodology, where candidates can rank routes in order of preference, was chosen for the whole route decision given it offered voters maximum choice and allowed them to indicate options that may be acceptable if their first choice was not the overall winner. However, a single vote methodology was chosen to determine the preferred junction at Birnam/Murthly Castle for each route in order to minimise complexity for voters. In practice, voters were required to rank their preferred route(s) from among the four provided, ranking of all four routes not being necessary, and then to choose one junction to go along with each route preference indicated – a copy of the voting paper can be found in Appendix 3. In addition to this they were asked to fill out their name, postcode, and email address, to identify them as specific voters so that multiple voting instances could be eliminated.

1.2 Voting Formats & Collection

Voting was available in two formats. Online voting was conducted through the 'A9 Co-Creative Tracker site' with each registered user being able to vote on their preferred route(s) and junction(s). In addition, manual vote collection involved the collection of votes from both the ballot box located at Birnam Arts Conference Centre, and via the A9 Co-Creative email address. The results of ballot papers were entered manually by PAS into separate spreadsheets following clearance of the ballot box (five occasions) and separate captures of votes sent in via email and post. These ballot papers were entered verbatim, even where papers were spoiled, with two members of staff consecutively entering and then cross checking data in batches. To ensure a record of these votes was kept, unique ID numbers were assigned to all paper and email voting records.

1.3 Data Analysis and Validation

Captured data was then analysed to remove and disaggregate unverifiable votes. Unverifiable scoring/ranking cards included duplicate, voided, illegible votes. These accounted for 3 of the total number of ranking cards submitted, and consisted of 2 duplicates and 1 blank voting card. The total number of voided cards represented 0.4% of all voting records. This number is very low and emphasises both the low rate of preference indication errors, and adherence to the rules outlined in this section which allowed for the maximum number of votes to be validated.

A high-level principle of '*was the intent of the voter clear*' was applied when making any judgements, and subsequent rules were applied to allow for a judgement to be made, these included:

1. A valid voting card included any 2 of the 3 person contact fields. This was to ensure one vote per person. Those voting records that did not meet this criteria were to be voided (*there were no cases of this*).

2. Where a voter had used the same email address as another voter but had a different name, these were considered valid as it was clear that families may only have one email address, with some family members not having an individual email address.
3. Where a user appeared to have made an attempt to vote but not been able to, for example because of unsuccessful registration, several attempts were made to contact these individuals to assist them in completing their vote. *(There were approximately 30 cases of this, with 3 users responding to email contact with a resolution being found, and 4 users being identified as having invalid email addresses. The remainder did not respond to contact and it was assumed they had voted manually or did not wish to participate).*
4. Where two vote cards for the same preferences by the same individual appeared in the manual list only one vote proceeded (known as a duplicate). The following logic was applied:
 - a. Where an online vote existed and a manual one was to be loaded, with both showing the same preferences - the online one was used *(there were 2 cases of this)*.
 - b. Duplicate votes were checked for indications that one was to be considered a superseding vote. In this instance the voting record with such an indication was to become the sole voting record with the other voting record voided *(there were no cases of this)*.
 - c. Where duplicate votes had different voting patterns and there was no indication of a superseding vote, both voting records were to be voided as it would not be clear what the voter's intentions were *(there were no cases of this)*.
5. For a voting card to be valid an indication of a preference for a route needed to be present, if not the card was voided *(there was one case of this)*.
6. The only valid values in the Part 1 Route ranking section were the numbers "1-4", with the exception of the following where it was judged that the voter's intention was clear:
 - a. Where a singular "X", tick, or words to the effect that this was their only preferred choice, was entered next to a route choice, this was judged as a voter's first and only choice *(there were 46 cases of this)*.
7. The only valid value in the Part 2 Junction section was a singular "X" associated with a chosen/preferred route. Only one paper was observed as containing a Part 2 section which wasn't clear and was thus not recorded, their route choice in Part 1 still remained valid. Exceptions were however made where it was judged that the voters intention was clear:
 - a. Where a singular "1", tick, name of a junction, or respective route letter (A-D) was used in the junction choice for each route this was judged to be the voter's choice for a junction *(there were 59 cases of this)*.
 - b. Where a voter had ranked the junctions from "1-3" for each route the junction choice expressed with a "1" was used as their primary choice, with any numbers above "1" disregarded *(there were 14 cases of this)*.
 - c. If no junction choice was indicated for Route C, i.e. the Option 1 field was left blank by the voter, Option 1 was entered as the voter's choice for that route. This was done as it was assumed that the voter recognised that as there was only one junction option available, entering a choice was not necessary. This

would have no effect on the outcome of the junction that was associated with Route C as there was only one junction to choose from.

8. Where a junction choice had been made for a route that had not been previously preferred or ranked, this junction choice was disregarded and not recorded (*there were 5 cases of this*).
9. Where route preferences showed duplicate rankings these were disregarded and the singular rankings up to this duplicate number were recorded only, subsequent duplicate ranks were disregarded (*there was one case of this*).

1.4 Result Scoring

Following the Borda count methodology, firstly the route preference scores for all the votes were aggregated to find the overall ranking for the four routes. The scores were an inversion of the preferences given, where 1st = 4 points, through to 4th = 1 point. Once these had been ranked then the junction choices associated with each of these routes were aggregated as totals. In this manner the top route was identified first, and then all junction choices associated with that route were counted to identify the top junction for that particular route. Some voters did not indicate which junction they preferred for their route choice, however, this number was relatively small.

Appendix 2

Community objectives:	Transport Scotland's objectives:
<ul style="list-style-type: none"> • Reduce noise and pollution • Protect and enhance the area's landscape and natural heritage • Provide safe access to and from the A9 and improve safety on village roads • Promote sustainable local economic growth • Improve provision for cycling and walking • Bus services and train services are maintained and improved • Preserve and enhance historic and cultural features 	<ul style="list-style-type: none"> • Improve the operational performance of the A9 by: <ul style="list-style-type: none"> ○ Reducing journey times ○ Improving journey time reliability • Improve safety for motorised and non-motorised users by <ul style="list-style-type: none"> ○ Reducing accident severity ○ Reducing driver stress • Facilitate active travel • Improve Public Transport integration

Appendix 3: Example Stage 5 Voting Card

Stage 5: Preferred Route Voting Card

There is only one voting card per person. People under 18 are welcome to vote. You may:

- Drop** your voting card in the ballot box provided at the events, or behind reception at the Birnam Arts Centre; OR
- Post** your voting card to A9 Co-Creative, c/o PAS, Level 3, 125 Princes Street, Edinburgh EH2 4AD; OR
- Vote** online at www.A9Co-Creative.scot; OR
- Email** your vote to info@A9Co-Creative.scot.

Your vote must be received by no later than midnight on the 2nd July 2018.
Any votes submitted after this date will not be counted.

For the purposes of verifying one vote per person, we ask that you give your details below. In accordance with the General Data Protection Regulation (GDPR) your data will be kept securely and will have legal basis as details are recorded solely for the purpose of verification of identity in this ranking process. Your details will not be used for any marketing purposes and will be kept by Transport Scotland for the duration of this A9 Dualling Project in case this process is challenged. At the end of this period this data will be destroyed.

Name: Postcode:

Email:

This voting card is in two parts.

Part 1 enables you to indicate which of the four Routes A, B, C or D you prefer. Use numbers 1 - 4 to show your preferences, using number 1 for your top choice, and 2 for your second choice etc. You may rank all four Routes, or less than four, whichever you prefer. (N.B. any route you rank will gain at least one score, so do not rank any route you dislike.)

Part 2 enables you to indicate which Junction design you prefer at Birnam for the route(s) you have chosen. You must enter a choice of junction for your vote to count in Part 2. Enter X in a single column for your choice of junction.

Please note that some Junctions are not compatible with certain Routes, as indicated.

See the reverse of this voting card for descriptions of the routes, and also of the options for the Birnam junction.

Part 1			Part 2		
Route	Rank		Junction 1	Junction 2	Junction 3
A		→			Not a choice for Route A
B		→			
C		→		Not a choice for Route C	Not a choice for Route C
D		→			

If you have any questions or need help to complete your vote, please contact us at info@A9Co-Creative.scot, alternatively an FAQ document is available at www.A9Co-Creative.scot/resources.