For Publication

Blackford Cycle Paths Feasibility Study

Main Report

Year of publication 2017

by Dr Crispin W. Hayes
Crispin Hayes Associates
www.eco-consultancy.co.uk

on behalf of
Blackford Community Council

v 1.0

Acknowledgements

The author would like to thank

- Steering Group members for their energy and input
- local organisations that have supported the initiative
- stakeholders that have fed into the project

and a huge thanks for taking the time to

- nearly 200 local respondents to public consultation

Thanks for all your contributions

Disclaimer

Crispin Hayes Associates take all reasonable care to ensure the information and opinion given in this report is valid and up to date. Crispin Hayes Associates and its contributors to this report cannot accept liability for any consequences of any action you may take, or fail to take, as a result of reading the report.

Revision List

Draft v0.7	Issued 12th October 2017	By hardcopy only
Draft v0.9	Issued 1st November 2017	By email only
v1.0	Issued 3rd November 2017	By email and hardcopy

Summary

Blackford Community Council has long recognised that walking and cycling provision in the area is being compromised and should be improved. Blackford Community Council (BCC) secured funding for a feasibility study to begin addressing the issue.

There are serious constraints to moving around the Blackford area without using a car. The constraints are primarily:

- A9 trunk road
- Land use patterns, and in particular large and increasing areas used for golf

This project seeks to address these issues directly by creating high quality cycle paths to key destinations. The focus is on utility cycle journeys – so for example; to work, school, shopping - rather than leisure journeys.

A public consultation was carried out, new cycle routes were proposed and costed designs were prepared of each of the three routes.

Public Consultation

The consultation with individuals was highly successful. A great deal of relevant opinion both quantitative and qualitative was collected. The key outcomes are:

- overwhelming support for a new cycle path on this route
- clear concern and fear of cycling beside or across the A9 trunk road
- significant potential for modal change from car & bus to bicycle
- tangible carbon benefits can be calculated
- clear concern and fear expressed about safety on current routes
- evidence that a high quality of surface for the path is required
- strong request for new path to be away from the road

Routes

The consultation together with the initial appraisal successfully identified destinations and desired routes. Existing routes were shown to be sub-optimal or undesirable. Three new routes were proposed that would better serve the community's need for utility cycle paths:

- Route North to the Orchil Road via Gwest
- Route East to the Loaninghead junction
- Route South to the Bardrill Road

The three routes have been costed according to two different construction specifications:

- Scheme A total construction costs are estimated as £334,380.45
- Scheme B total construction costs are estimated as £457,556.61

Landowner Consultations

The consultations to date with landowners has been lengthy and in some cases very successful. However, Blackford is contained by one significant landowner. Further work is required to engage with the family directly rather than with proxies, in order to achieve the desired outcome.

Key Ongoing Issues

There are a number of issues, but the following require particular attention because of the risk they represent to the project:

- securing landowner and land user consent
- maintenance arrangements must be in place to secure capital funding

Table of Contents

1 Introduction

Blackford Community Council has long recognised that walking and cycling provision in the area is being compromised and should be improved. Blackford Community Council (BCC) secured funding for a feasibility study to begin addressing the issue.

This document reports on the outcome of the feasibility study. This report holds a secondary purpose, that of a record of progress and negotiation, and other background issues and analysis that could otherwise be lost at the conclusion of this study.

1.1 Consultant Experience

The consultant has been creating solutions for rural communities for a decade in our 'Rural Alternatives to Car Use' strand. Though we recognise that bus services can be part of the solution, low population density tends to limit their frequency and cost efficiency. Therefore our focus in this strand is on:

- utility cycle paths
- cycle parking nodes for modal change; bike, park, lift or bike, park, train
- promoting lift sharing tools

We carried out our first path feasibility, design and build project in Fife in 2007.

1.2 Project Rationale

There are serious constraints to moving around the Blackford area without using a car. The constraints are primarily:

- A9 trunk road
- Land use patterns, and in particular large and increasing areas used for golf

This project seeks to address these issues directly by creating high quality cycle paths to key destinations. The focus is on utility cycle journeys – so for example; to work, school, shopping - rather than leisure journeys.

Utility cycle journeys require path infrastructure that is:

- safe
- away from vehicular traffic, preferably entirely separated
- direct
- not a circuitous route. A meandering leisure path is not the focus.
- fast
- good surface,
- minimal interruptions and impediments; such as side road & driveway giveways
- accessible
- gradients are moderate
- can be used by those with an average level of fitness

Though the focus of this project is cycle paths, we also recognise that we are intending to build infrastructure for other non-motorised users including pedestrians, disabled or assisted pedestrians, wheelchairs and powerscooters. In this respect we are creating all-abilities paths, and it is the intention to include other infrastructure such as rest places and accessible signage within the proposed design.

1.3 Scope of feasibility project

The scope of the feasibility study was set out in the tender documents. The scope was identified to include journeys to locations within 5 miles of Blackford. The significant locations within 5 miles that were identified are:

Gleneagles Railway Station

Gleneagles Hotel/ Muirton

Auchterarder

Gwest development (when it is built)

In order to be comprehensive, we supplemented these locations with directional requests.

1.4 Aims of Study

Broadly speaking this study aims to create a solution for Blackford's relative isolation for non-vehicular transport. It aims to do this by:

- assessing the routes and various options
- surveying the proposed route to determine its current condition
- consulting the public to determine their support and opinion
- determining landownership on the proposed route
- engaging with landowners with a view to gaining permission
- identifying barriers to realising the cycle path

The aims are given in more detail in the tender documents.

1.5 Data Sharing

Data is shared between the client and consultant using a cloud storage service. This enables authorised partners to have full access to all data: consultation responses, fieldwork records, and photographs.

No personal data is shared outside the project.

1.6 Mapping Resources

The Consultant has used QGIS to produce resources such as route map layouts for this project.

Perth and Kinross Council kindly supported the project by providing a Licence Agreement for various mapping assets including their Core Path network.

Scottish Rights of Way Society provided information regarding Rights of Way in the area.

Registers of Scotland have provided land ownership information.

1.7 Steering Group

The project was fortunate to have a strong and engaged steering group. It consisted of:

Janet Law (Chair), Katharine Huggett and Irene McLaughlan, all of Blackford Community Council

Nina Gillespie, Strategic Project Officer, TACTRAN (& Sustrans)

Dave Stubbs, Greenspace Coordinator, Perth and Kinross Council

This was supplemented by other members of BCC, and interested local members of the public.

2 Background Data

2.1 Local

Gleneagles Station Usage

The 2017 Passenger Rail Usage Survey Report[1] carried out on behalf of Strathallan Community Rail Partnership, includes a section on the usage of Gleneagles railway station. On the date of survey (25 Oct 2016) a total of 66 passengers boarded trains and 23 alighted during a 4 hour morning period. Of those boarding the train, **none travelled by bicycle**, 2 people by bus and the rest by car or taxi. However most (88%) had travelled for less than 15 minutes, so had short journeys to the station. Five out of 43 passengers questioned travelled from Blackford.

Highland Spring Travel Plan

A Travel Plan[2] was created as part of the planning process for the extension to the plant. It notes in terms of the walking and cycling environment that "Links for those outside Blackford however are limited due to the primary route in and out of the village being the A9(T) . . ." (Section 2.2.2). It notes that 350 staff are based at the site with 220 maximum on site at any one time. There are 176 car parking spaces and 10 cycle parking spaces.

The report goes on to quote travel data for the area (derived from Scottish Census data) that indicates 0% of people cycle to work in the wider Blackford Gleneagles Greenloaning Muthill area (Section 2.5.1) though 12% walk. However 76% travel by car.

For the Highland Spring workforce that lives locally, 34 travel from Blackford, 25 from Auchterarder, 25 from Dunblane, and 7 from Crieff.

In terms of those living further afield that could access Blackford via Gleneagles railway station and a short bike ride or walk (when a good cycle path is created); 42 travel from Perth, 25 from Stirling, 23 from Glasgow, and 11 from Dundee.

The Travel Plan Strategy has a **target of 0% for cycling**. The other targets are very weak; proposing a reduction in single car drivers from 80% to 76% over a 5 year period.

In the Measures to Encourage Walking and Cycling (Section 4.4) it does include:

- Provision of local cycling maps, routes and cycle times to key destinations
- Promotion of the sheltered and secure cycle parking
- Provision of lockers, showers and changing facilities
- Support and promote the connections to Blackford Village

Neighbouring projects

The Auchterarder Paths Network had a Path Improvement Feasibility Study carried out in 2015. Though this focussed mainly on paths within Auchterarder, it is evident there is other local interest in improving paths in the wider Blackford area. A copy of the report is available from Perth and Kinross Countryside Trust.

[1] Systra (2017) *Strathallan Community Rail Partnership Passenger Rail Usage Survey Report*.

[2] Systra (2017) *Travel Plan. Highland Spring Ltd Factory Extension*. *Report ref no. 105720.* Available online as document supporting planning application 15/01827/FLL at http://www.pkc.gov.uk/publicaccess

2.2 National

Scottish Outdoor Access Code[3]

This is the key document on access in Scotland. It directly addresses many issues including golf courses, and defines what constitutes an obstruction to access. BCC should be aware of the provisions in this regard, in order that a stronger case can be made when local access is compromised.

Scottish Planning Policy[4]

This is a national document that includes a section on how outdoor access is considered within the planning system. Clause 220-222 and 228 are of particular relevance. Clause 221 includes;

" The planning system should: ….

- provide for easy and safe access to and within green infrastructure, including core paths and other important routes, within the context of statutory access rights under the Land Reform (Scotland) Act 2003."

Managing Woodland Access and Forest Operations in Scotland[5]

The document has indirect relevance to the situation being considered. Its relevance is that landowners and land managers sometimes claim that their activities are incompatible with public access on grounds of safety. This document demonstrates how the relatively hazardous processes involved in forest operations can be managed safely and also minimise the disruption to public access.

[3] Scottish Natural Heritage (2005) *Scottish Outdoor Access Code*. Available from http://www.outdooraccess-scotland.com/

[4] Scottish Government (2014) *Scottish Planning Policy*. Available from www.gov.scot/Resource/0045/00453827.pdf

[5] Forestry Commission Scotland (2013) *Practice Note 104 Managing Woodland Access and Forest Operations in Scotland.* Available from http://scotland.forestry.gov.uk/supporting/forest-industries/managing-woodland-access

3 Route Investigation & Initial Recommendation

3.1 Location of existing paths and routes

We used several sources to identify existing paths and routes:

- Blackford Community Council and its members, including an unpublished booklet 'Local paths and Rights of Way in and around Blackford' by George Bunyan and Alastair Lawson (dated 2000-2002)
- Perth and Kinross Council; Core Paths, Rights of Way, and Signposted Paths
- Scotways; Rights of Way in the area
- discussion and anecdotal evidence from interested local parties

From this we were able to collate a series of existing paths and routes for consideration in terms of path upgrade. Those are shown in the figure overleaf.

3.2 Method for Initial Assessment

A cycle-over survey was carried out in April 2017, with a number of walkover surveys to follow up and fill gaps. Photographs, field notes and GPS tracks were recorded.

In the following sections, a description of available routes is given. We have tried to include all available routes and paths. Not all of these are suitable for cycling or even for upgrading to cycle path.

3.3 Existing Routes to the West

There are few off-the-road options for routes to the west. Figure 1 shows the situation.

There is a road and farm track to the west, running to the south of the A9 from Blackford but this terminates at Longfauld Farm and it is not possible to get to Netherton. Therefore it is of little use to the west.

The Panholes Road is really the only feasible route, and thence along the Orchil Road to Braco. The Panholes Road has relatively little traffic though cars do travel at speed along it. It also has many blind corners and the topography is hard work for cycling.

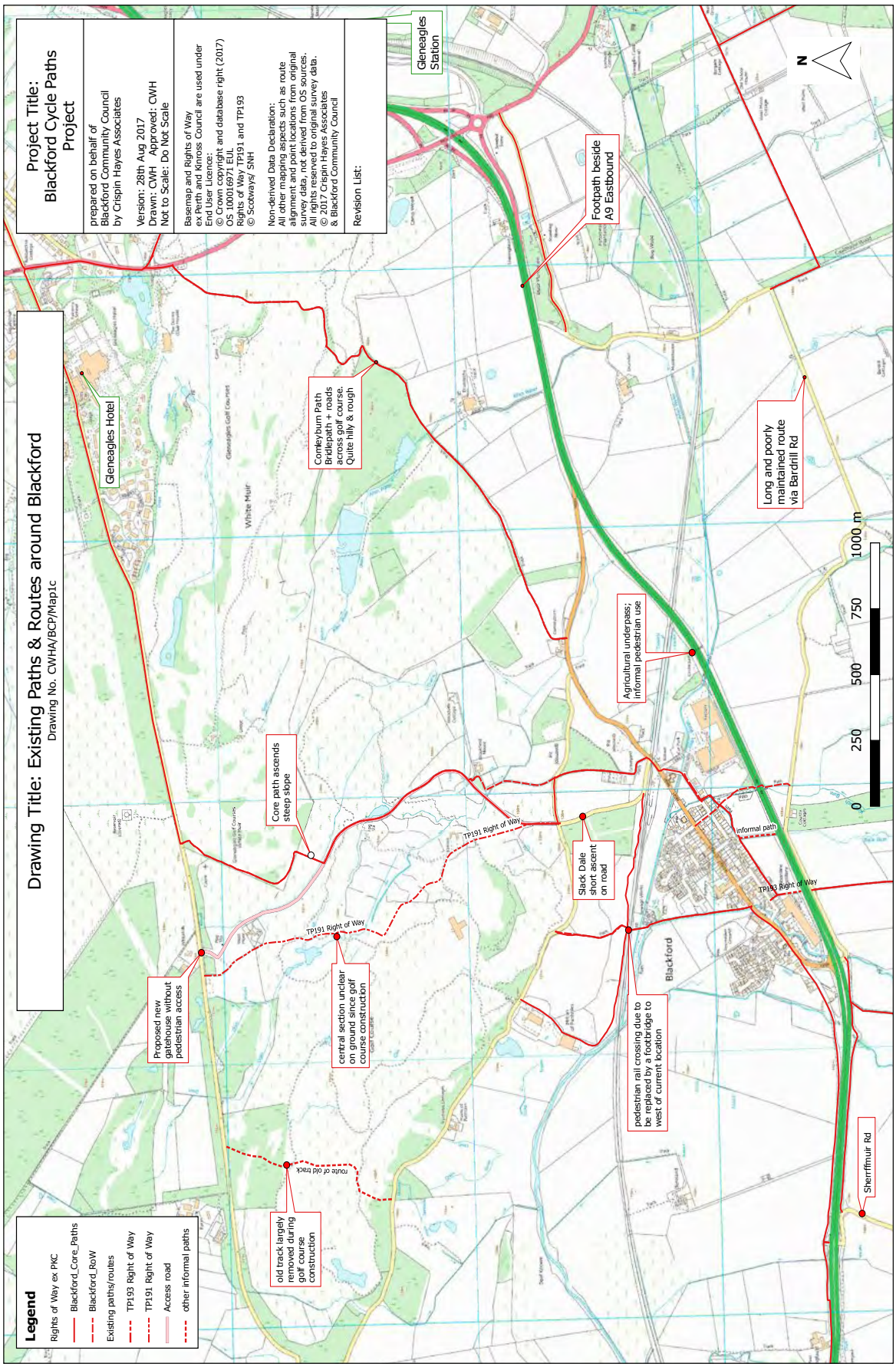
To get to the Panholes road from Blackford there are several alternatives. The most direct is a potholed track leading down beside the Danny Burn to the wastewater treatment plant on the Allan Water. The at-grade crossing of the railway is easy to negotiate with a cycle. However, this is going to be replaced with a bridge by Network Rail; currently the proposed bridge has approach stairs and no ramp. This will render the route much less desirable for cycles, and unfeasible for disabled and prams.

To the north of the current at-grade rail crossing there are three options: East to the Slack Dale road. Possible on a bike though, can be a little muddy for a road bike. North up a raised bank, and across a stile to the Panholes Road. Walking route only. West along a grass track to Milton of Panholes up the farm track to the Panholes Road. Quite feasible though not on a road bike.

To get to the Panholes Road on a road bike the quickest (though not particularly direct) route, is to head east out of Blackford, over the level crossing and then turn left up the Slack Dale road. Slack Dale has a short section of steep gradient, which many cyclist will choose to walk up.

To summarise, there is an existing route west along the public road, albeit circuitous. There is also the potential to have an improved off-the-road short cut from Moray St to Milton of Panholes. However until the rail yard development and new pedestrian crossing are settled, this useful shortcut cannot be developed.

Figure 1: Map showing Existing Paths and Routes in the Blackford area.



3.4 Existing Routes to the North

Blackford is potentially quite well provided for routes to the North. The initial part from Blackford up to the Panholes Road in described above. The Slack Dale road is probably most useful in its current state.

Continuing north from the Panholes Road should provide three options, and one further *de-facto* solution potentially exists. All of these transit the Gwest/Kirkton development.

Firstly the Core Path route (PKC 28/9, Scotways TP196). The section of interest starts at the pedestrian gate near Brookfield, heads north along the new Gwest access road, before deviating NE up a steep grassy bank, and over a stile onto the Gleneagles Hotel golf course and then along its perimeter fence to the Orchil Road. This latter section is rough grass walking path. The steep grassy bank (around 9m high) doesn't have a well-defined path, though it does have waymarking posts. This path was initially dismissed as unsuitable for because of the steep bank.

Secondly the Claimed Right of Way (PKC 28/8, Scotways TP191). This follows the route of an old farm track past Kirkton Farm and West Moor. The current access road for West Moor from the north is part of the route. It is shown as a complete track on the OS 1st Edition (1850s) and all subsequent editions, so it is clear that this route has been intact for more than 150 years. During the recent golf course construction for the Gwest development, major sections of this route have been substantially changed with the track being removed entirely in large parts. Gwest contests use of the route.

Third, there is also an undesignated track running N-S staring west of Mains of Panholes up towards Easterton. Anecdotal evidence shows this route has been used by local people for decades, and is shown on the OS 1st Edition. For the last few years it has not been available as Gwest have deer fenced the entire site and have installed locked gates.

Finally, the Gwest development has built a very good access road running from the Panholes Road up to the Orchil Road. This is *de facto* the best current route and is being used by cyclists now. However its use is contested by Gwest; and the proposed gatehouse at the north will prevent its use.

3.5 Existing Routes to the South

All existing recognised paths to the south require an at-grade crossing of the A9 trunk road. This is a serious barrier to movement.

Crossing the A9

There are no Core Paths that cross the A9 in the vicinity of Blackford.

In the above figure, apart from the Blackford road junction, there are several other used or recognised pedestrian crossings of the A9.

An Asserted Right of Way in the centre of Blackford runs from the lane Post Office Entry south along a footpath, and crosses the A9 and thence to Bardrill Road.

A path runs south from The Cross, off Stirling Street and follows the burn to the A9. Although there is no formal crossing point here, it does appear to be used to get to the Bardrill Road immediately on the southern side of the A9.

Scotways indicate TP193 an Asserted Right of Way running south from the west end of Stirling Street past the corner of the distillery warehouse and over the A9 to the Bardrill Road. This route may no longer be in use. TP193 continues south to Tillicoultry.

A pedestrian crossing of the A9 exists just east of Longfauld Farm which can be accessed via Moray Street. A staggered pedestrian crossing emerges at the head of the Sheriffmuir Road.

There is a farm vehicle underpass at Netherton which has a Core Path route through it, but it seems unfeasible to get to Netherton from Blackford by bicycle on the north side of the A9.

The only readily available option in the vicinity of Blackford that does not require an at-grade crossing of the A9 is the agricultural underpass, around 150m east of the water bottling plant between the Allan Burn and the railway line. Access to this underpass is currently difficult with a cycle, but can be walked relatively easily although there is not a formal path. However, there are clear signs that the underpass is used regularly.

Heading south

Once south of the A9 two cycle routes heading south are available.

The Sheriffmuir Road heads southeast towards Dunblane and Bridge of Allan. The start of the Sheriffmuir Road is approximately 1km west of Blackford. A farm track runs along the southside of the A9 that is passable on a mountain bike, but a road bike would struggle. The alternative is to come to this point via the pedestrian crossing east of Longfauld Farm as described above.

The A823 Gleneagles & Glendevon road can be accessed by first heading east via Bardrill Road (which is described in the section below).

3.6 Existing Routes to the East

Comelyburn Path – a Core Path

Starting beside Comelyburn Farm, the well-known path heads up a moderately steep gradient, following a field track before entering a woodland track, and running along the top of the fields of Drumlochy Farm. The view is pleasant and it is away from the road. The path continues through various boggy sections until it arrives at the Gleneagles Hotel golf course. It follows tracks and a road across the golf course, and has steep gradients at some points. It crosses some fairways though on formal paths. The path exits at the Golf Club entry gate onto the A823.

Footpath beside the A9 trunk road

The path beside the A9 is a footpath in the verge beside the trunk road, between the carriageway and a stone dyke. It runs from the eastern outskirts of Blackford near the salt depot, beside the slip road and then along the northern verge of the A9 on a footway, across the front of the Loaninghead Service Station, and thence to the Loaninghead flyover junction. The path is around 1m wide and is poorly maintained is several areas, with a loose surface and evidence of periodic flooding. It is less than a metre away from the edge of the carriageway in some parts. There is no barrier between the carriageway and the footpath.

It is not a Core Path route. It appears to be regularly used by cycles according to the evidence of tyre marks.

The route is however direct, being 3.0km from the centre of Blackford to the Loaninghead junction roundabout.

Bardrill Road

The Bardrill Road is a quiet country lane that takes a circuitous route from Blackford to the Loaninghead junction. There are two section of moderate gradient. The riding experience in terms of road surface for most of the route is poor, with sections where the wearing course is broken and potholed. A short new section at the eastern is well surfaced. At various points it suffers from granular material, such as mud and gravel, being washed onto the road and accumulating there. In one area flooding is evident.

The route is not direct, being 5.5 km from the centre of Blackford to the Loaninghead junction roundabout.

3.7 Appraisal of Existing Routes

An appraisal of existing routes was carried out by 10th April 2017 and was presented to a Steering Group meeting shortly afterwards. The appraisal identified key issues for the main routes that could be candidates for upgrading to cycle path.

Kirkton/ Gwest routes; Key Issues

Access	Core Path at north is merely a footpath with a stile.
Topography	Core Path at north has a steep bank between the Gwest road and the boundary fence.
Access	Gates were unlocked and accessible (on the weekday when the prelim survey conducted). Local information is that the gates are locked at weekends. Access at north does not have side gate, only main gate for vehicles.
Topography	Fairly steep incline on public road (Slack Dale) up to Kirkton entrance.
Topography	Kirkton is around 30m higher in altitude than Blackford. Therefore there is an inevitable climb from Blackford. Within Kirkton/Gwest on the new road is at a moderate gradient that is relatively easy to cycle.

The issues identified above led to the initial conclusion that existing routes via Kirkton were not well suited to upgrading to cycle path.

Comelyburn path; Key Issues

Topography	The topography of the section of the route in the golf course is that some of the topography is quite challenging for cyclists. There are several sharp inclines and descents.
Safety	Golf is actively played, and there is a risk of being struck. However, the preliminary assessment on a sunny day with many golfers is that the course layout reduces much of this risk by either having reasonable sightlines or no having fairways crossing the route. This is only a preliminary assessment and further work is required.
Other	The section of the path in the golf course is in fairly good condition. Some of it is loose gravel, but much is either bitmac or concrete.
Other	The section of the path to the west of the golf course is in poor condition, but could be upgraded relatively easily.

The issues identified above led to the conclusion that the existing route via the Comelyburn path is not well suited to upgrading to cycle path.

Footpath beside A9; Key Issues

Safety	Eastern entry to A9 Roadside path. When cycling in westward direction, it is necessary to enter the slip road from A823 in the wrong direction against the No Entry signs. The cyclist needs to be on the pavement prior to the junction. There is a risk at this point of a cyclist who remains on the carriageway of A823 of turning into the slip road against the flow - especially if there is little traffic.

continues

Safety	Western exit from A9 Roadside path. When cycling in a westward direction and proceeding on the roadside path, after passing against the No Entry signs, there is no indication at what point the B8081 becomes 2 way, and is recognised as such by drivers. Therefore it is unclear at what point it is safe for the cyclist to cross the road and use the carriageway.
Safety	Crossing the filling station entrance is hazardous due to entering traffic, especially when cycling in an easterly direction.
Safety	Inadequate separation from carriageway for section at western end. The western section of roadside path has approximately 1m of separation from the carriageway curb. There is no hard shoulder so heavy vehicles occupy the carriageway up to the curb. The safety issue is that the path is with the wind wash and spray zone, and this could cause a cyclist to loose control.
Liability for users	There is no indication that this is a shared use path.

Subsequently, the Client and Consultant jointly met with Transport Scotland & their operations contractor BEARScotland at Perth on 12th June 2017.

We learned that this footpath is:

- has not been designated for shared use. It is therefore not legal to cycle on it
- has insufficient width to comply with the standard specification for shared use
- has insufficient space available to widen it in order to comply with the standard specification for shared use
- cannot have a barrier erected between the carriageway and existing footpath because a traffic run off zone beside the carriageway is required. The runoff zone includes the footpath in areas where width is constricted, for example at western end.

BEARScotland agreed to carry out a site visit to assess the current condition of the path and address issues that we identified such as a missing drain cover.

On the basis of our own assessment, and our understanding from the above meeting, we concluded that the existing route beside the A9 is not well suited to upgrading to cycle path.

Gleneagles Station; Key Issues

Safety	Shared used. No assertion of shared use on main access via Loaninghead flyover, on access road nor on junction itself.
Safety	At grade access across A9, for Auchterarder and most direct route to Gleneagles Hotel/ Muirton area
Other	Good access road from flyover down to Station
Other	Station parking at 1430hrs Mon 10apr 2017 34 cars, 2 cycles.

An assessment was made for the route from the Loaninghead flyover on to Gleneagles Station in order to identify any other issues for onward access. From the above, it can be seen that little work is required to upgrade to cycle path. The main task is designation as shared use, and installation of signage.

3.8 Development of New Routes

The above description and appraisal of existing routes from Blackford showed that none are well suited for upgrade to cycle path.

Though for some paths there was no technical barrier to upgrade, the outcome would have been unsatisfactory because of intrinsic problems of topography or safety. Thus even an upgraded path would not have experienced good uptake from new users. Therefore, a series of new routes was developed to address the requirements that we learned from the public consultation, and in particular the likely destinations that were desired (See Figure 7 on page 20).

The new routes were based on three desired directions;

- North
- East
- South

More than one option was considered for Route East.

New routes were derived initially from deskstudy and were then scouted out on the ground. The proposed new routes are show in the Figure overleaf.

An appraisal was carried out for each of the new route options to determine which to take forward for further development. The Appraisal Report was presented to a public meeting on 24th May 2017, and is given in the Public Appendices in Section 10.1 below.

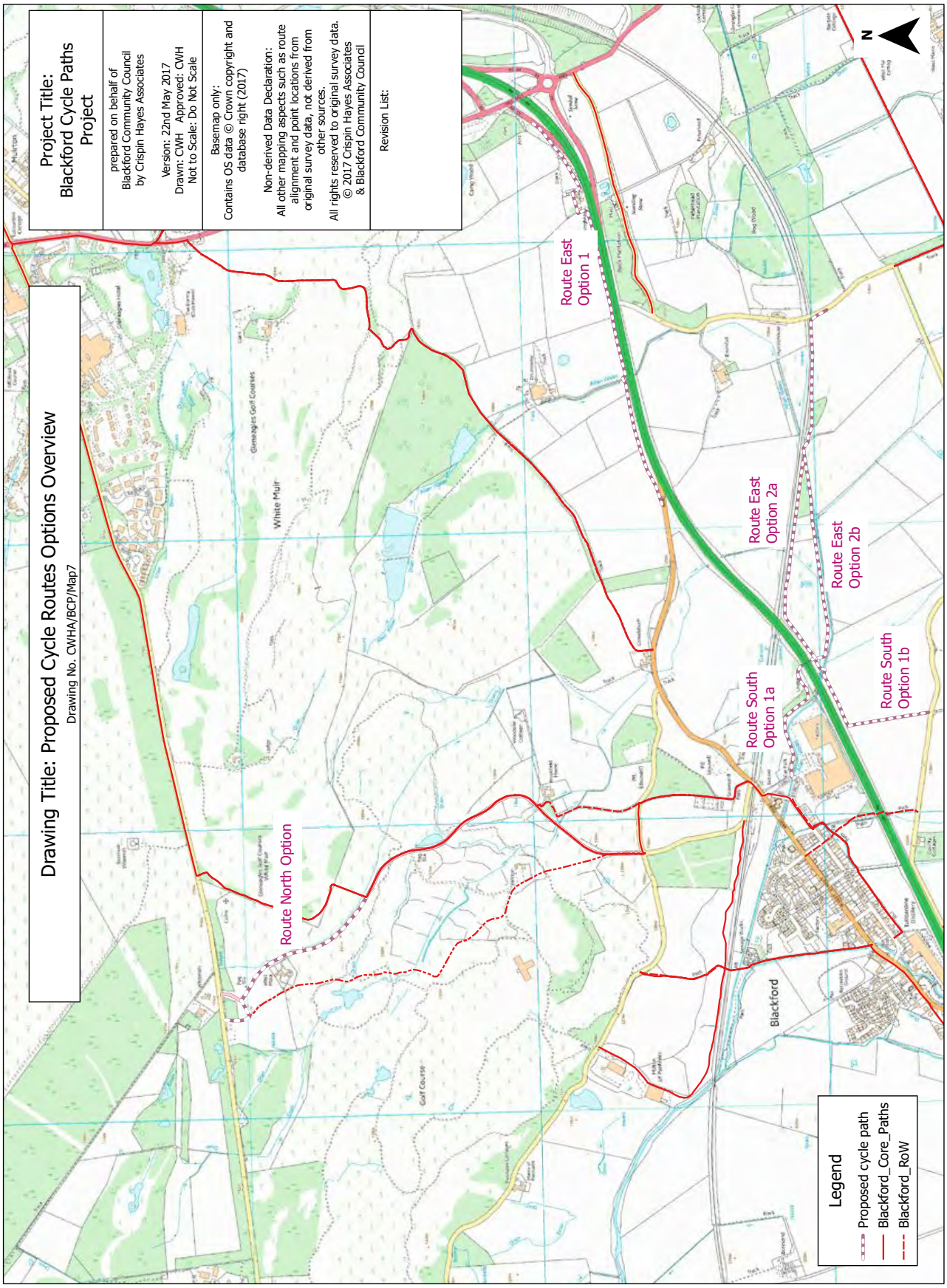
The Appraisal Report made recommendations to proceed to develop:

- Route East Option 1 – north side of A9
- Route South Option 1a and 1b – agricultural underpass
- Route North Option – Kirkton/Gwest new road

The public meeting on 24th May 2017 agreed to take all these routes forward to landowner consultation.

Subsequent consultations with landowners and land managers since the meeting have modified some of these routes. The outcomes are given in Section 5 Landowner Consultation below.

Figure 2: New Route Options



4 Public Consultation

As part of the feasibility, it was deemed essential to determine whether there was public support for the proposed cycle paths, and to gauge the scale of the support, and indeed whether that support was likely to result in change in transport habits. We also wanted to seek opinions about various criteria that would help determine the design of the path; for example whether on-road cycleways were an acceptable alternative to an off road cycle route, and how the quality of the route surface might affect usage uptake.

The public consultation took the following forms:

- direct email contact with BCC's existing network
- a local campaign on social media
- articles submitted to the local newspaper by BCC
- door-to-door pre-launch publicity delivered to every house in Blackford
- a launch event in Blackford
- a webform to collect data from a wider group
- a follow-up feedback presentation on the consultation outcome

We also divided the consultation into two groups:

- Individuals, where the respondent spoke in a purely personal capacity, though this could include for example the impact on their journey to work.
- Organisations, where the respondent spoke on behalf of the organisation, and its people.

For organisations, we also wanted to determine their opinions on likely benefits and dis-benefits to their economic or social output. Therefore this focussed on local employers.

4.1 Public Consultation Methodology

The contract required that the Scottish Government's 'Shifting Normal' methodology be considered. We were content to incorporate this methodology as it is very much in-tune with our own participatory approach.

Shifting Normal is orientated to longer-term projects that also have a workshop element. This project is a short feasibility phase, in a longer development programme. However we implemented the methodology in our consultation launch event as follows:

The 'Four Questions'

Shifting Normal question	**Our consultation event question**
Does it feel right?	Do better local cycle paths feel right for you ?
Does it make sense?	Does going by bike make sense for you ?
Does it fit into my day?	Could you replace some car or bus journeys by going by bike? Would it fit into your day?
Can I do it?	How realistic is it for you? Can you do it ?
	What would hinder you from making the change ?

In respect of the 'Four Zones', we incorporated the Zones aspect less overtly, by weaving them into the consultation questions.

The Four Zones are:

I zone	Personal
We zone	Social groups
They zone	Wider society
It zone	Physical factors

At our consultation launch event we also used various '*participatory appraisal*' tools such as the H diagram and choice matrices.

Consultation Webforms

To enable reach to a wider group of respondents, two web forms were utilised as consultation mechanisms; one for individuals and one for organisations.

The web forms were created on a commercial web service and were then embedded on the Blackford Community Council website and their Facebook page. Short URLs were created for publicity use.

The web forms were 'responsive' to enable them to be completed on tablet and smartphone as well as a PC.

The content and structure of the webforms is shown in the Appendices, and in the results given below.

To summarise, the Individuals Consultation form was structured as follows:

- General support
- How happy with current situation
- Where do you want to go
- If there were good cycle paths, how likely and how realistic would it be for you
- How you travel & modal change
- Reasons for local journeys, and mileage
- Opinion on nature of paths
- Comments
- Respondent profile

The Organisations Consultation form was similarly structured, but with some key amendments:

- General support
- What do you see as the benefits of better paths
- What do you see as the dis-benefits of better paths
- How your people travel & modal change
- Reasons for local journeys, and mileage
- Opinion on nature of paths
- Comments
- Respondent profile

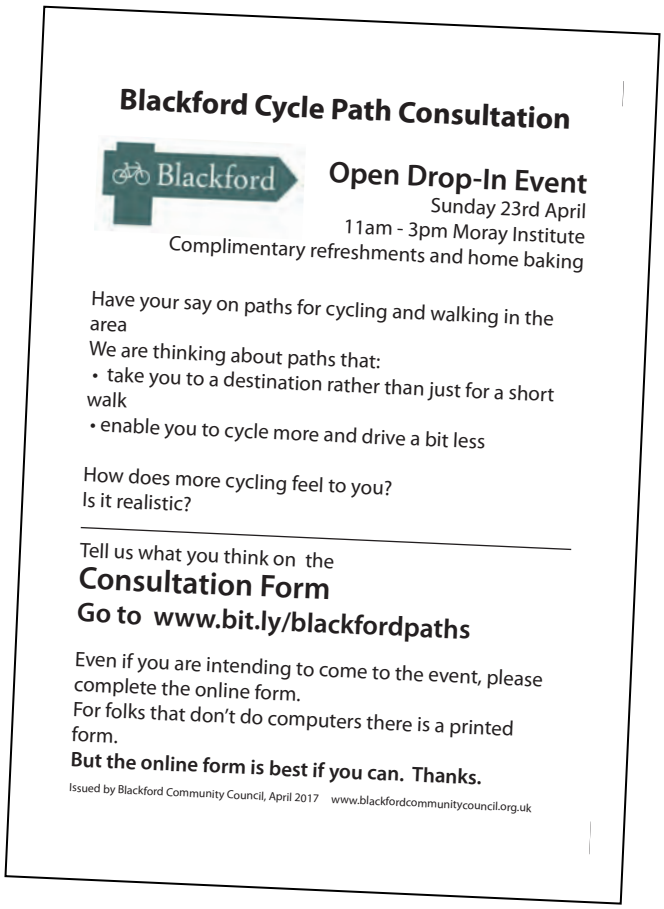
The individuals' consultation webform was opened on 13th April 2017, and was promoted in the subsequent days by the use of targeted social media.

The organisations consultation webform was opened in June, but was not publicised in the same way. It was promoted by invitation to specific employer organisations.

Pro-active Public Engagement

Given tight timeframes for the feasibility project, we engaged pro-actively with residents of Blackford. An A5 flyer (shown) was produced as well as a print version of the individuals consultation form.

On Tuesday 18th April 2017, two of the consultant's staff together with the Chair of Blackford Community Council knocked on every door in Blackford (~300 houses). We told people about the project and left them with a flyer and form.



Blackford Cycle Path Consultation

Blackford

Open Drop-In Event

Sunday 23rd April
11am - 3pm Moray Institute
Complimentary refreshments and home baking

Have your say on paths for cycling and walking in the area
We are thinking about paths that:
• take you to a destination rather than just for a short walk
• enable you to cycle more and drive a bit less

How does more cycling feel to you?
Is it realistic?

Tell us what you think on the
Consultation Form
Go to www.bit.ly/blackfordpaths

Even if you are intending to come to the event, please complete the online form.
For folks that don't do computers there is a printed form.
But the online form is best if you can. Thanks.

Issued by Blackford Community Council, April 2017 www.blackfordcommunitycouncil.org.uk

Pictures: Above; Flyer. Left; Chair of Blackford Community Council Janet Law, on the doorsteps talking about better paths for Blackford.

4.2 Public Drop-In Launch Event

The Launch Event took place on Sunday 23rd April 2017 in the Moray Institute, between 11am and 3pm. The purpose of the event was to inform and consult with the general public.

It was intended to be an informal, drop-in style of event at which all generations could find themselves welcome. Home baking was provided by path enthusiast and top baker Katharine Huggett, and a set was played by the cycling musicians Tarneybackle[6].

The event attracted 50 participants, many from Blackford but also Auchterarder.

The outcomes of the Launch Event and further photos are shown in the Appendix Section 10.4 below.

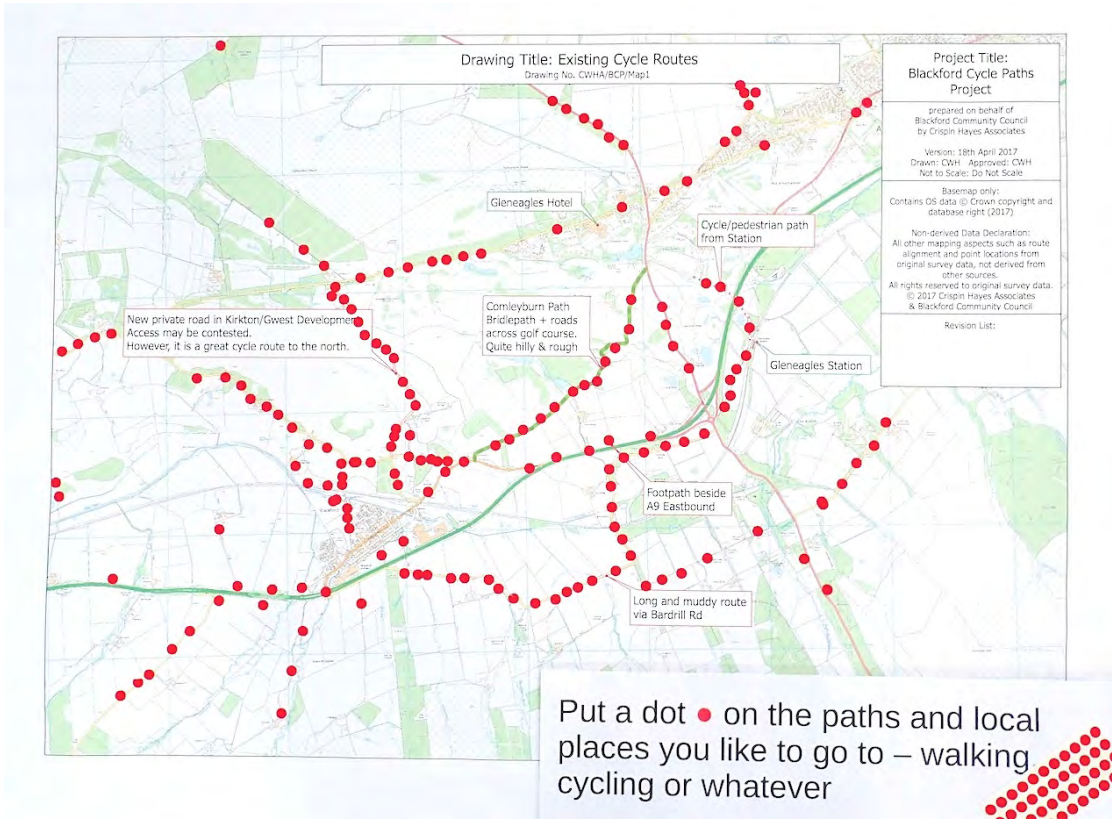
[6] www.tarneybackle.co.uk

Summary of outcomes

Picture: Scene at launch event

- Most people are not happy with the current situation re paths
- People like the countryside and scenery in the area
- Aspect people find not so good centre on the A9 and road safety.
- Improvements that people would like to see focus on solutions to the barrier and perceived hazard of the A9 trunk road.
- Most destinations were deemed likely, and the most popular were Auchterarder and to the south of the A9 towards Sheriffmuir. Glendevon was the most popular other destination.
- In terms of the Shifting Normal questions, all participants said better paths feel right, and going by bike makes sense.
- Participants overwhelming but not unanimously said that they could fit it into their day, and that it was realistic, they could do it.
- In terms of hindrances to implementing the change, traffic and the A9 were cited as the key issues.
- Mapping use of local paths in the figure below, shows all local routes are used, even a few beside the A9. Of note is the popularity of the Gwest access road whose use is contested

Figure 3: Local paths and routes you like to us

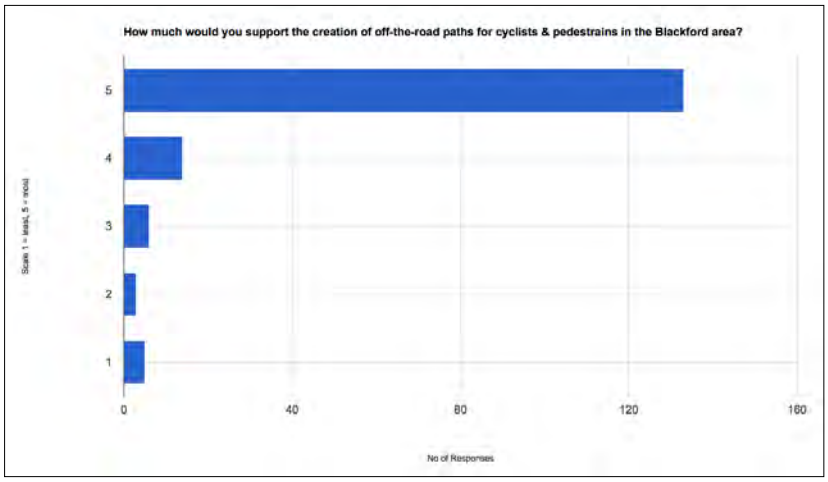


4.3 Consultation with Individuals

A copy of the webform for individuals is given in the Appendix, section 10.2 below.

A total of 161 responses were responses received by 22nd June 2017, the majority being submitted in April when publicity and door-to-door engagement took place.

Figure 4: How much would you support the creation of this off-road path for cyclists & pedestrians?



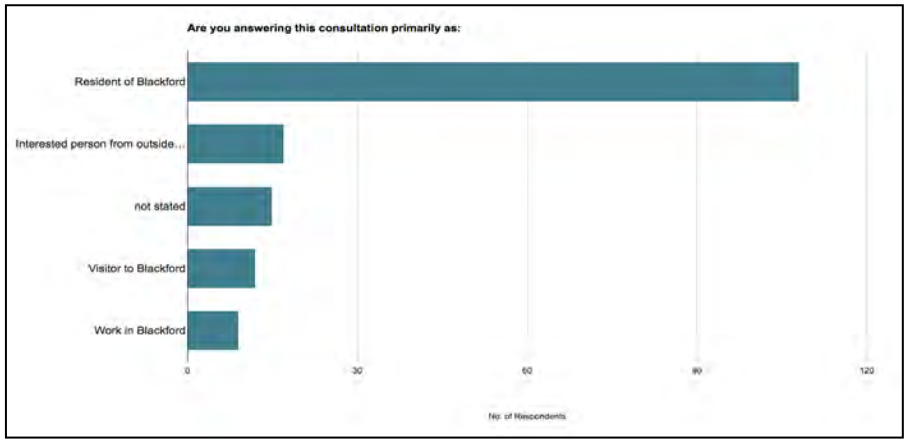
Scale: 1= No support to 5= Strong support.

The intention of this question is to get an overall sense of the level of support for the proposed cycle path.

The graph shows that an overwhelming majority strongly support the creation of this path. Over 130 respondents strongly support the creation of off-the-road paths for cyclists and pedestrians in the Blackford area. Very few people give it no support.

To establish the relevance of responses, we asked in what capacity the response was primarily being made.

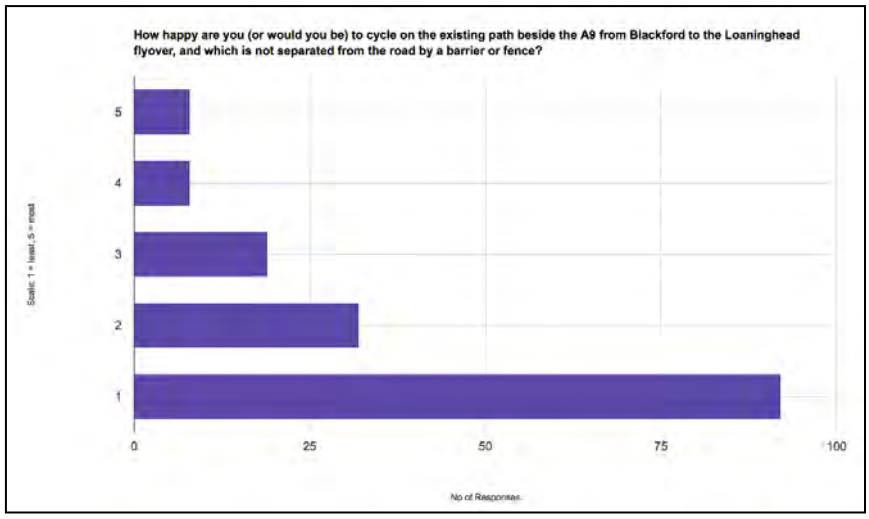
Figure 5: Location & Capacity of Response



The graph shows that a significant majority of respondents state their capacity as 'resident of Blackford'. 'Interested persons from outside' in the second largest category, while 'visitors' and those that 'work in Blackford' have the fewest numbers.

We actively engaged with the major employers in Blackford and requested their employees were encouraged to be part of the survey. Therefore the low level of response is disappointing. Of the nine respondents that stated that they 'Work in Blackford', all were local, mostly from Auchterarder, some from Crieff and Braco – all of cyclable range given appropriate paths. Therefore it seems that the consultation didn't reach those who travel from further afield, mainly by car, perhaps because train + cycle is not yet seen as an alternative to commuting by car.

Figure 6: How happy are you to cycle by the A9 from Blackford to Loaninghead?

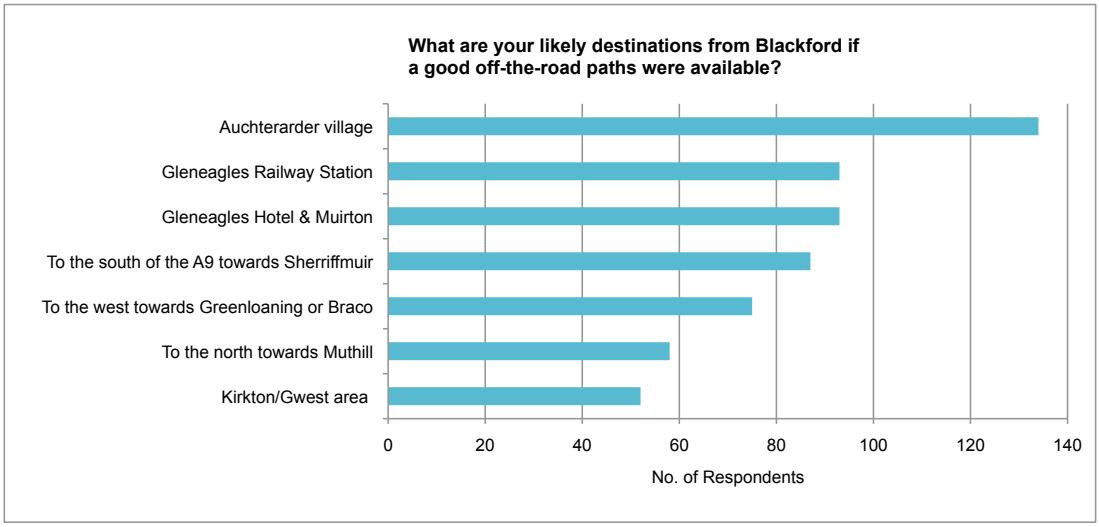


Scale: 1= Not happy at all to 5= Very happy as it is.

While anecdotal evidence suggests that a few more determined cyclists are content to cycle on the footpath beside the A9, the large majority of respondents are not happy about this at all. Comments given later in this Section, show that the A9 is considered a major barrier to cycling, and it is perceived by many respondents as dangerous to do so.

It is also worth noting, that our discussions with Transport Scotland (who are responsible for trunk roads including the A9) confirm that it is a footpath not a shared-use path, and therefore cycling along it is illegal. That said, cycle tyre tracks are evident and fairly numerous on the roadside path.

Figure 7: Where are your likely destinations from Blackford?



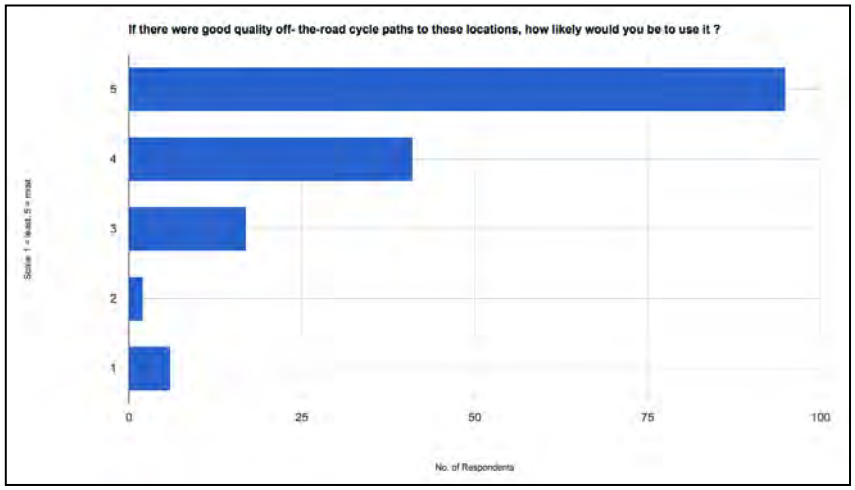
The remit of the project was to consider destinations within 5 miles of Blackford. It is clear from the graph that Auchterarder is the destination that most respondents would like to be able to travel to. Over 130 respondents chose Auchterarder.

Large numbers also chose the Railway Station and Gleneagles Hotel/ Muirton. And surprisingly large numbers also choose the south and the west.

To the north and to Kirkton/Gwest while less popular, still have more that 50 respondents stating them as a likely destination.

Just to note that we consider Kirkton/Gwest as significant future destination because the development that is in progress there, and hence its inclusion.

Figure 8: If good quality paths were created, how much are you likely to use it?

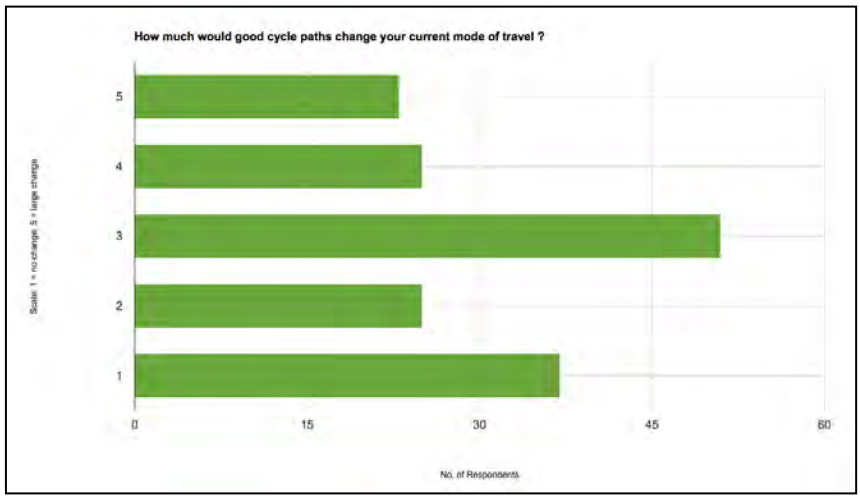


Scale: 1 = hardly ever, 5 = daily use.

While support shown in Figure 4 is very welcome, it is also necessary to gauge likely use. During further development of the path project, an estimate of carbon saving will be carried out as part of the justification case.

The graph above shows that most respondents would use the path very frequently. At the upper end, nearly 100 respondents said they would use it on a daily basis. At the lower end, a handful of respondents said they would hardly ever use it.

Figure 9: How much would the path change your current mode of travel?



Scale 1 = no change, 5 = large change.

The issue of modal change, that is changing from one mode of travel to another mode as a result of the creation of a cycle path, is of significant interest. It contributes to building the case for a path in terms of carbon savings as well as other benefits such as health & well-being.

The graphs shows that there was a much more mixed response to this question. It shows that the amount of change individuals envisage, varies a greatly from person to person. Around 20 participants said it would result in a 'large change', while at the lower end around 35 people said it would result in 'no change'. Interpreting the latter figure is interesting. For those respondents that stated 'no change' comparatively few comments have been made. For those that have made a comment, some reasons emerge: some are already cyclists, some have children that are not yet old enough to cycle. Another said they try to use the bus but end up using the car.

Comments from respondents stating path would result in 'large change', stating either 4 or 5:

I travel the Gleneagles to work, and walk my dog approx. 3 miles a day. So better paths would be fantastic!

Yes it would be nice to have the choice of walking , cycling or using the car on a daily basis.

I would go out more often if I didn't have to drive on the dual-carriageway! I'm quite happy to cycle (lived in the netherlands for many years) but want a safe route.

I run the local bike shop so I often organise cycle routes that would incorporate blackford and beyond if there was a step change in the infrastructure.

If there were suitable cycle routes to Gleneagles Station, I would utilise my bike to get to and from the station. The path along the A9 is not ideal.

It is a very short journey to the Railway Station and I feel that everyone would benefit from a safer or improved cycle/walking path to Glenegles Station

"I don't drive so my only feesible mode of transport is by bus. So I don't get to anywhere as often as I would like, hence why the mileage is low.

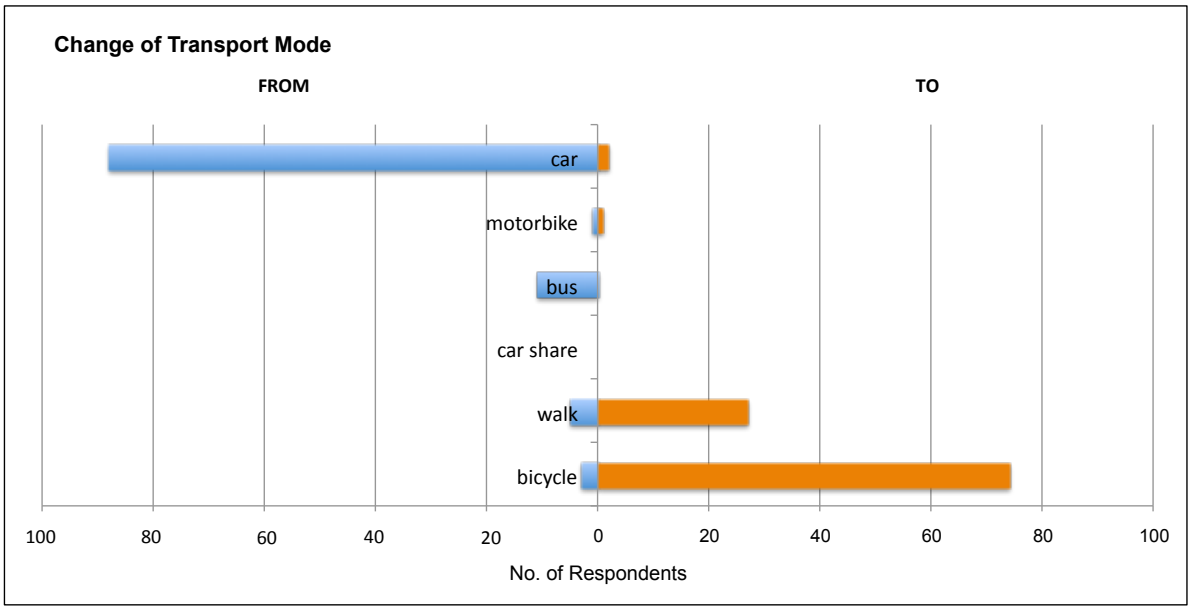
I also have a pram which isn't always allowed on bus if the space is occupied. An off the road path would give us greater access to the local amenities and enjoy the beautiful countryside we live in whilst boosting our exercise levels."

Really support idea of safe cycle tracks.

Lack of safe cycle paths is the most important factor making me use a motor vehicle instead of a bicycle.

Safety and fear of road traffic appears to be an emergent theme in these comments.
All the comments are shown in the Appendix in Section 10.5 below.

Figure 10: Stated modal change from path creation



The graph above shows what modal changes respondents reported. 'From what' is shown on the left hand side in blue, and 'To what' on the right in orange.

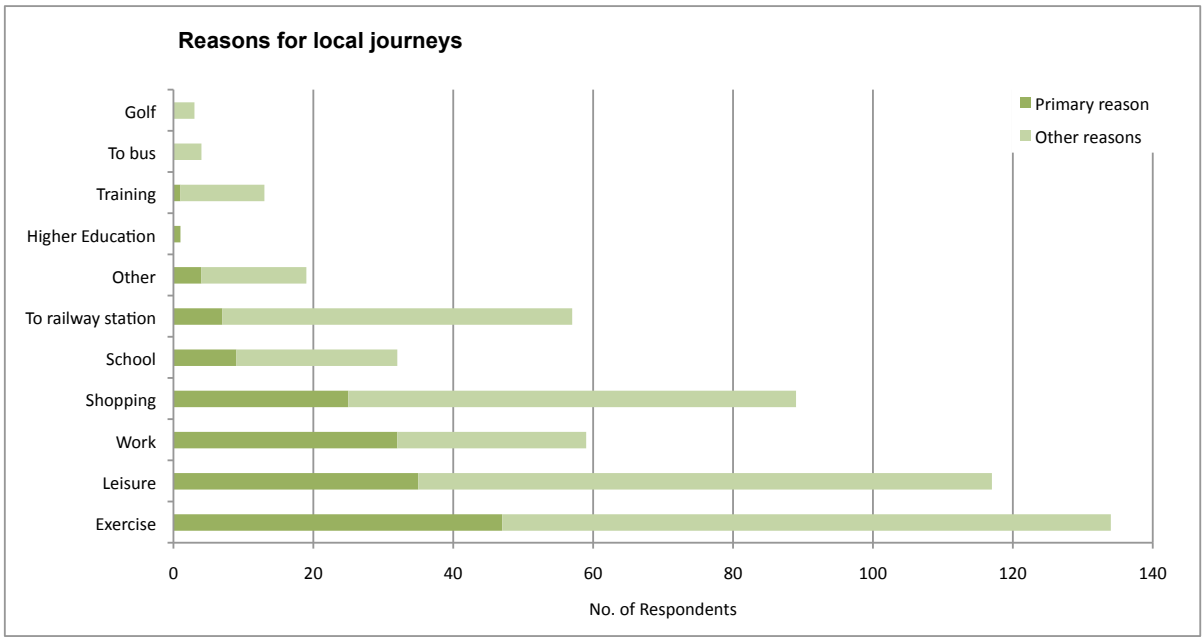
The graph shows that the modal change would be **away from car and bus**, and **to walk and bicycle**.

Around 85 respondents (over half the total survey participants) stated that they would change away from car use. Also significant was the reduction in bus use – clearly a minority of respondents would rather cycle or walk than use the bus.

These are highly significant results in making the case for better paths for Blackford.

It represents a change in behaviour for a significant proportion of respondents.

Figure 11: Reasons for travelling on these routes



The graph above combines separate questions of 'primary' and 'other' reasons by category, and is ordered by 'primary' reason.

As can be seen for both primary and combined reasons **exercise** is the most cited reason for local travel, followed by **leisure**, and some way behind **work,** and **shopping** and **school.**

While relatively few chose the **railway station** as their primary reason, many chose is as an 'other' reason.

The high number of respondents for these main categories should be noted in comparison to the total number of 161 respondents.

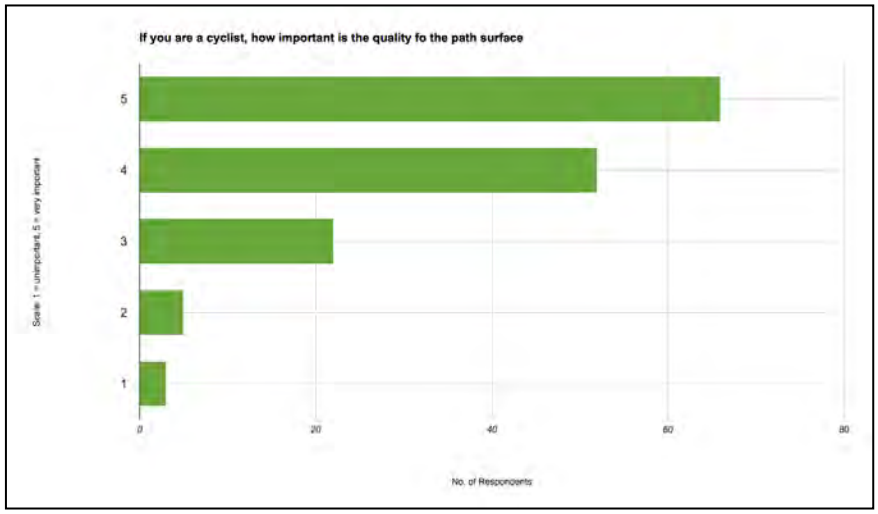
Weekly mileage

We asked respondents to estimate their weekly mileage on these routes.

118 responses were received to this question. Those respondents reported an **average of 41 miles per week**.

The consultation now turns to the nature of the path.

Figure 12: If you are a cyclist, how important is the quality of the path surface?

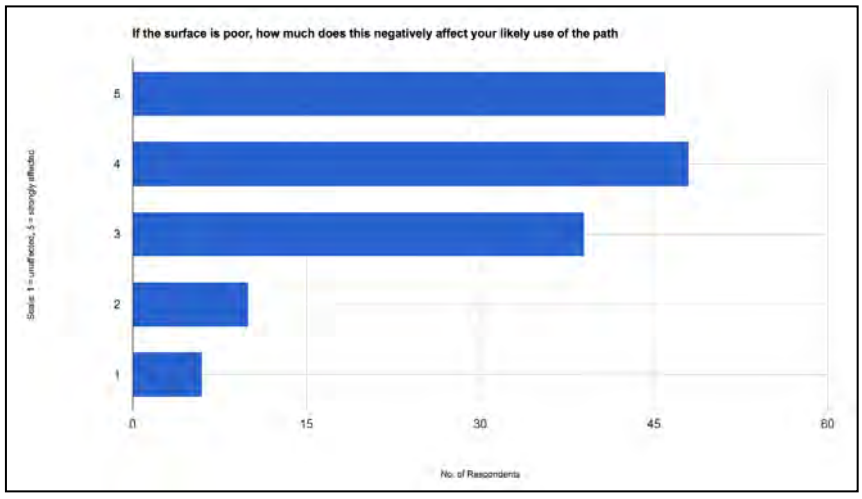


Scale: 1 = unimportant, 5 = very important

In order to help determine the most cost beneficial surface for the proposed cycle path, the consultation asked how important the surface was, and goes on below to assess the negative consequences of a poor surface.

The graph above shows that a large majority of respondents (73%) thought that the quality of the path surface was ‘important’ or ‘very important’.

Figure 13: If the surface is poor, how much does this negatively affect your likely use?



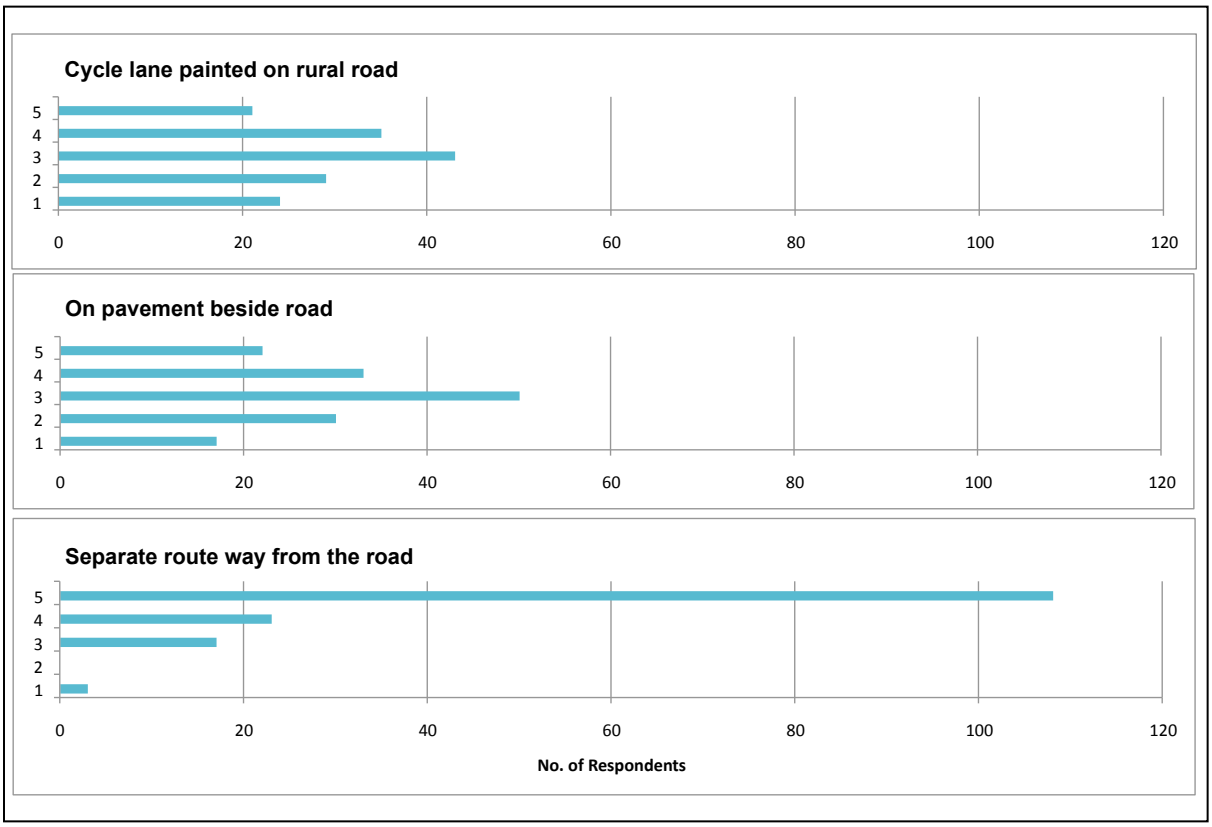
Scale: 1 = unaffected, 5 = strongly affected

In terms of assessing the negative affect of a poor service, the graph above shows that the overwhelming majority of respondents are affected to significant extent. Over half of respondents (58%) are significantly affected.

These two graphs **make the case that a good quality surface is required** if uptake of use is to be optimal.

Turning now away from the path surface to consider the nature of the route, these questions are designed to help determine what sort of path route will result in high usage.

Figure 14: How important is the nature of the route to your use. How much do you like:



Scale: 1 = Don't like, 5 = Really Like

Three related questions were asked to determine the desired nature of the proposed path. Respondents were asked to score how much they liked:

- cycle paths painted on rural roads (top chart)
- cycle paths on a pavement beside the road (middle chart)
- cycle paths away from the road on a separate route (bottom chart)

For cycle paths painted on rural roads, the top chart shows that there is mixed opinion, and it is evenly divided between that don't like them and those that do.

For cycle paths on a pavement beside the road, the middle chart shows opinion is again equally split, most respondents tending to the centre of the scale.

For cycle paths away from the road on a separate route, the bottom chart shows overwhelming strong support, at levels well above the other options. 81% respondents stated that 'really like' or 'like' this type of cycle path.

These data create **a strong case of the proposed cycle route to be away from the road**.

Comments were invited on the nature of the path. A few selected comments are given below to illustrate the typical content. All comments are given in full in the appendix section 10.6 below. Many interesting and useful points are made.

If commuting to Gleneagles Station, a rough track or a surface that get me dirty would not be ideal.

Separate routes are much safer for families wishing to cycle with children

As in property where it is all about location, location, location - with cycle paths it is about the quality of the surface!

Tarmac designated path

Best to be tarred

Badly needed separate network for cycling and walking ...coming from central belt where the network is very good here is terrible with a very high amount of cyclists. Network painted on roads just don't work well. Cars park on them and are not cleaned well of debris which causes punctures.

Finally, other general comments were invited on the consultation form. This is a chance for respondents to tell anything else in the context of the project. A few have been selected and have been given below. All comments are given in the Appendix section 10.7 below. Again constructive and relevant comments have been made.

I would just like to say that this is an excellent idea and would be a big reason to stay in Blackford instead of moving.

Our village at times can feel as though it is chocked by the A9, the railway and the 2 golf resorts (Gleneagles & GWest). Suitable paths will enable the residents to get out and enjoy the surrounding areas. A protected path to Gleneagles Station and Auchterarder will open up different choices for the local area.

When using the main path to Gleneagles Station, this route is not ideal. The path has been taken over by parked trucks and trailers. Currently, when passing these trucks (next to the Salt Depot), I have to use the road, running on the outside of the trucks, in the road. The existing path is almost gone, as trucks park on it. It is also littered with collapased sign posts, knocked over by the parking trucks.

Safe crossing of the A9 for cycles and pedestrians is a key

Strongly feel that if a route was to be developed along the route of A9 it has to be protected from road on other side of field walls and fencing. Also if going to use existing route like Badrill Road, clearly surface needs to be significantly improved (to avoid spokes snapping due to potholes!)

A significant amount of comments data has been collected across 3 form fields in this consultation, and this warrants more detailed analysis than the current scope project allows. Apart from the text content itself, there is an opportunity to correlate opinions with other quantitative responses in order to better understand the respondents.

The consultation form asked for age, gender, and location data in order to track the profile of respondents to determine if the source of responses was well distributed.

A summary of that data is given in the Appendix, section 10.8 below

It shows a satisfactory distribution by gender and age.

Web analytics have been used to collate data on the mode of response. These are useful for follow up work. A summary is given in the Appendix, section 10.8 below. It shows that around a third of responses came via Facebook.

4.4 Consultation with Organisations

A copy of the webform for organisations is given in the Appendix, section 10.3 below.

Engagement

The intention was to engage with organisations that create demand for transport both from Blackford and incoming to the Blackford. As such we focussed on the significant employers and on visitor attractions.

We wrote to, arranged meetings with the following organisations:

Gleneagles Hotel	Colin Farndon, Director of Leisure
Tullibardine Distillery	John Torrance, Distillery Manager
Highland Spring	Chris Livingstone, Facilities & Community Relations Manager

We also agreed at the request of one employer, that they could pass on the survey form to the employment agencies that they use.

Outcome

All these organisations were interested in the project and verbally expressed the benefits that they could see, for example:

- ability of employees to have an alternative to car use
- easier to attract agency temporary staff as many are non-car drivers
- help address issues identified in company transport plan
- create facilities that would benefit their leisure business

However, no survey responses have been received. We have chased this matter up. The matter is also complicated because the same organisations are landowners/ tenants on routes that we are negotiating paths to be built.

The reasons that survey responses have not been received are understood to be:

- organisation does not want to record opinions in public – even if they are anonymous.
- organisation does not want to give opinion as might be at odds with landowner negotiations that are occurring in parallel
- difficulty in identifying the appropriate person in the organisation, who has the knowledge also has the authority to provide opinion
- pressure of work and other management tasks means the survey falls lower down the to-do list

While this outcome is unsatisfactory, the project has given local organisations the opportunity to record their views on benefits and dis-benefits and raise other issues in relation to cycle paths in the Blackford area.

4.5 Consultation with Other Stakeholders

Other stakeholders have been identified, and a process of engagement has taken place. The table shows meetings have been held and their context.

Organisation	Person	Context
Perth & Kinross Council	David Stubbs	Access Officer, and historical planning issues relating to rights of way and core paths.
Tactrans	Nina Gillespie	Representing regional transport partner
Sustrans	Nina Gillespie/ Sarah Feldman	Liaison & advice re specification
Transport Scotland	Robin Jacobs	Gov agency responsible for A9 trunk road. Discussion about existing roadside path, and possible future works.
BEARScotland	Kevin McKechnie	A9 trunk road manager. Discussion about existing roadside path, and possible future works.

4.6 Feedback to the Public on Consultation Outcome

We wanted to feedback to the community about what they had collectively said. This is a key aspect of the participatory approach. We did this via two events:

Stand at Blackford Gala

A display highlighting the key finding from the Individuals Consultation together with comments was produced. Blackford Community Council ran the stall at the Gala on Saturday 11th June 2017.

Public Presentation

Consultant Crispin W. Hayes gave a slide presentation at an open public meeting held in the Blackford Inn in May 2017

The meeting had been promoted locally by Blackford Community Council.

Picture: Consultation feedback at Blackford Gala

5 Landowner Research & Consultation

5.1 Determination of Landownership

Determining the ownership of land along the proposed route is a vital step towards realising the project.

Various formal and informal sources were used, including in some cases the Registers of Scotland. Direct discussion during engagement was also a source of land holding information.

There is now a complete knowledge of land ownership along the proposed routes.

As local people will already know, most of the land surrounding Blackford is owned and controlled through various holding companies, by the Al Tajir family.

5.2 Engagement with Landowners

Landowners, their representatives, land managers and tenants have been directly engaged with by face-to-face meeting, carried out by the Consultant. The Client provided a letter of introduction.

The purpose of this engagement was:

- Confirm landownership
- Inform them about the proposed path
- Gauge response, and listen to opinions and concerns
- Assess likelihood of cooperation
- Work towards a solution that is satisfactory for all parties
- Seek an *in principle* agreement on that solution
- Where possible, sign a Memorandum of Understanding

This method has resulted in many constructive and useful conversations. The detail of those negotiations has been shared with the Client.

Several significant landowners on the proposed routes have signed written Memorandum of Understandings. Original copies are now in the hands of the Client.

5.3 Status of Route Agreements

The current status of permissions is summarised below:

Route North:

Ongoing negotiation with two parties.

Route East:

Agreement from some parties, ongoing negotiations with tenants.

Route South:

Tenant agreed permission.

Landowner refused permission. No specific reasons forthcoming.

6 Path Specification, Site Survey & Pre-planning

6.1 Path Specifications

This section describes how the path specifications for this project were developed.

Rural footpaths have a dedicated design standard in Scotland, but rural cycle paths do not. Of course there are established design standards for cycle infrastructure discussed below; however, these have an overtly urban or peri-urban context, both in the scale of engineering and their usage rates. As such they are not entirely suited to the rural context because:

- path usage rates are much lower
- cost per user for a given standard of path is therefore higher
- environmental cost per user for a given standard of path is therefore higher

It is therefore our contention that rural cycle paths should be specified to an appropriate level and not over-engineered; and that the environmental cost/benefit ratio must be considered. In terms of the latter, we have not proposed a numeric analysis but rather maintain a consistent awareness of keeping the environmental costs as low as possible while creating cycle infrastructure of satisfactory utility.

6.2 Design Principles

The following design principles have been identified:

- Utility; the path should be of sufficient utility for easy, direct journeys to be made by cycle.
- Aesthetic; the path should fit into the landscape. It should also provide both a pleasing appearance and a pleasing outlook for its users.
- Environmental cost; the main construction design principle is to ensure that the environmental overheads of construction & maintenance do not outweigh the environmental benefits of cycle use. To that end, the design is intended not to be over-engineered. Materials should be sourced locally. Recycled materials such as recycled aggregates are to be desired. Quality control and site supervision are essential to ensure that a high quality outcome is achieved.

6.3 Design Standards

The design standards that are used are contained in two key documents:

- Sustrans Design Manual[7]
- Cycling by Design[8]

There may also be some scope for utilising *Lowland Path Construction*[9] and its associated documents.

For unsealed paths, on-path drainage features such as the 'rolling grade dip' are as specified in *Trail Solutions*[10]

In term of disabled access the principles contained in *Countryside for All*[11] will be taken into account.

---

[7] Sustrans. (2014) *Sustrans Design Manual. Handbook for cycle-friendly design*. Sustrans, Bristol.

[8] Transport Scotland (2011) *Cycling by Design 2010 (Revision 1, June 2011)*.

[9] Paths for All Partnership *(2001) Lowland Path Construction. A Guide to Good Practice.*

10 IMBA (2004) *Trail Solutions.* International Mountain Bicycling Association, Boulder, Colorado, USA.

[11] Fieldfare Trust (2003) *BT Countryside for All - A Good Practice Guide to Disabled People's Access in the Countryside*.

Signage is largely addressed in the main standards above, but in terms of accessibility, the content of the *JMU Sign Design Guide*[12] will be taken into account.

6.4 Design Criteria

The paths within this project are likely to be moderately used, typically a few tens of persons per hour at their maximum.

The following criteria have been used:

- Less than 100 users/hr indicates that a Shared Use is appropriate, and cyclists give way. (*Cycling by Design (2011)*, Table 6.1)
- Shared use, two way. Absolute minimum is 2m, down to 1.5m for short distances and less than 150users/hr. Desired min width is 3m. (*Cycling by Design (2011)*, Table 6.2)
- Additional buffer widths eg. wall >1.2m high is 0.5m standoff distance (*Cycling by Design (2011)*, Table 6.3)

6.5 Proposed Specifications

Three specifications have been developed for use in this project, and are given in the Table below.

Table 1: Path Specifications Summary

Specification name	Path use rate	Width	Surface	Main Standards	Environmental cost/benefit	Money Cost
Type A	Low	1.2m	Unsealed	Lowland Path Construction	Low	Low
Type B	Moderate	2.0m	Unsealed or sealed	Cycling by Design & Sustrans	Moderate	Moderate
Type C	High	2.5m	Sealed	Cycling by Design & Sustrans	High	High

6.5.1 Specification Construction Type A

The paths within this type grouping – 'low-use rural path routes' - have relatively few persons per hour traversing the route. Their origin is often an existing footpath or Right of Way. They are *de-facto* shared use though they may not have this as a formal designation.

Given their relatively low use, it is not appropriate to engineer these routes to a urban cycle path specification for up to 100 persons per hour. Instead a rural footpath approach is proposed. The intention is to create a hybrid of footpath and cycle path.

This specification entails a simple lightweight construction and at a minimal width of 1.2m. This width is considered minimum for two people to walk side by side. Cycles being passed by another cycle or pedestrian will need to stop. This width is also intended to help the control of vegetation ingress from edges, which is inevitable in a low usage rural situation. Having a relatively narrow path means that feet and wheels help control vegetation ingress.

[12] Peter Fraser & June Barker (2004), *Sign Design Guide. A guide to inclusive signage*, (London: JMU Access Partnership and Sign Design Society).

The surface of the path is unsealed and consists of a thin layer of compacted quarry dust (which is self-cementing) or fine gravel.

For unsealed paths, particular attention is required to on-path drainage, and water must be prevented from running down the path. The path is built with a crossfall, but in some circumstances it may not be sufficient. Therefore on-path drainage features such as the 'rolling grade dip' are utilised which are more effective and require less maintenance than traditional water bars.

The full specification is given in the Appendix, Section 10.9 below.

6.5.2 Specification Construction Type B

This specification was developed as the optimum for moderately well used rural cycle paths such as those in the Blackford area. It is intended to provide a highly satisfactory experience without entailing excessive costs, environmental and financial.

The specification has minimum width of 2m, and has a construction build-up based on the Sustrans standard for a sealed surface, and an alternative unsealed surface option.

The full specification is given in the Appendix, Section 10.10 below.

6.5.3 Specification Construction Type C

This specification was developed to comply with the Community Links funding criteria, administered by Sustrans. Although the above Type B specification complies with Sustrans minimum design standards, the criteria for Community Links is slightly different. Key criteria are a minimum 2.5m width, and the surface course must be sealed.

The full specification is given in the Appendix, Section 10.11 below.

6.6 Site Survey

Detailed site survey was carried out on the final route options in order to specify an accurate Schedule of Works for each of the three routes. The site survey built on the data already collected in the preliminary route appraisal. In the case of Route North a level survey was also carried out on part of the route to determine a feasible design on a steep bank.

6.7 Pre-planning Consultation

A formal pre-planning consultation with the PKC Planning Dept has not been carried out because agreement of routes has not progressed sufficiently. However, informal consultation has taken place, and in particular have benefited from the membership of the Steering Group. The following pre-planning consultations have been carried out:

- Proposed route maps have been published. These have been discussed at Steering Group meetings
- Preliminary specifications have been circulated and discussed with the Steering Group
- Issues of public access have been discussed with the Steering Group and directly with Dave Stubbs, Community Greenspace Coordinator, Perth and Kinross Council.
- Issues of public access have been discussed with staff in the Planning Dept at Perth and Kinross Council.
- Proposed locations for path egress onto the public highway have been discussed directly with Dave Stubbs, Community Greenspace Coordinator, Perth and Kinross Council.
- Shared use re-designation of the pavement on the Loaninghead slip road has been discussed with Transport Scotland and BEARScotland.

7 Initial Design Options & Cost Estimation for Path Routes

The initial design options are given by:

- Specification documents with standard construction cross-sections
- Route maps showing construction waypoints
- In depth Schedule of Works for each route, citing standard design details

7.1 Basis of Costing

The material elements making up the proposed path are costed separately and used in the costing of the Schedule of Works. The costings are derived from recent and historical costings with an appropriate construction cost inflation increment.

Project management including tender specification and management has been costed at 20% of construction costs.

A contingency fund of 10% of project costs has allocated.

7.2 Schedule of Works & Costings

Two separate schemes have been worked up and costed.

Scheme A is considered by the Consultant as the optimum scheme in terms of cost/benefit for money and the environment. It uses Specification Type B as the design basis.

Scheme B is intended to comply with the Sustrans Community Link Fund criteria, and uses Specification Type C as its basis. However Route North remains as Type B because it is unfeasible to comply with Type C on the switchback sections on that Route.

Construction using Specification Type C has significantly higher costs for both money and the environment. Only high use of the created path assets will ameliorate the cost/benefit.

The full Schedules of Works and respective construction maps are given in the Appendices Sections 10.12, 10.13 and 10.14 below.

Summaries for Scheme A and Scheme B are given below.

Table 2: Scheme A Cost Summary

Estimated Costs; Construction Scheme A		Totals	length, m	£/ linear m (basic excl VAT)	£/m2 (basic excl VAT)
Route North. Gwest to Orchil Road	Route North	£ 52,982.49	760	£ 69.71	£ 34.86
Route East. Blackford to Loaning Head Flyover	Route East	£101,435.85	1528	£ 66.38	£ 33.19
Route South. Moray Street to Bardrill Road via underpass	Route South	£ 57,928.10	1186	£ 48.84	£ 24.42
Construction, Design and Management compliance		£ 2,000.00			
construction subtotal		£214,346.44			
	contingency	£ 21,434.64	at 10% of const. costs		
Tender man'mt, Construction man'mt, site supervision, financial administration		20%	levy rate		
		£ 42,869.29	amount		
	subtotal	£278,650.38			
	VAT rate	20%			
	VAT	£ 55,730.08			
v.29oct17	**Scheme A total incl VAT**	**£334,380.45**	3474	£ 96.25	£ 48.13
Crispin Hayes Assoc. on behalf of Blackford Community Council					

Table 3: Scheme B Cost Summary

Estimated Costs; Construction Scheme B		Totals	length, m	£/ linear m (basic excl VAT)	£/m2 (basic excl VAT)
Route North. Gwest to Orchil Road	Route North	£ 52,982.49	760	£ 69.71	£ 34.86
Route East. Blackford to Loaning Head Flyover	Route East	£119,135.20	1528	£ 77.97	£ 38.98
Route South. Moray Street to Bardrill Road via underpass	Route South	£119,187.84	1186	£ 100.50	£ 50.25
Construction, Design and Management compliance		£ 2,000.00			
construction subtotal		£293,305.52			
	contingency	£ 29,330.55	at 10% of const. costs		
Tender man'mt, Construction man'mt, site supervision, financial administration		20%	levy rate		
		£ 58,661.10	amount		
	subtotal	£381,297.18			
	VAT rate	20%			
	VAT	£ 76,259.44			
v.29oct17	**Scheme B total incl VAT**	**£457,556.61**	3474	£ 131.71	£ 65.85
Crispin Hayes Assoc. on behalf of Blackford Community Council					

7.3 Land Acquisition or Lease

Acquiring ownership of land is unnecessary, and usually unwelcome from the existing landowner's perspective. What is required is permission to construct or improve a path, while leaving the existing landowner with the land.

In some cases, a landowner may require the path promoter (or a proxy local organisation) to take a lease out. This is usually as a result of concerns over liability rather than wishing to generate revenue.

8 Future phase project management costs

The summary of proposed future phase costs are given in the table below, and in the subsequent section these are detailed.

Table 4: Future Phase Project Management Costs

No.	Item Group	Item task	Quantity	unit	unit rate, £	Total excl VAT, £
1	**Legal Services**					
		Legal costs for other parties	9	agreements	£1,000.00	£ 9,000.00
		Legal cost for our party	9	agreements	£600.00	£ 5,400.00
					Item subtotal	£ 14,400.00
2	**Design Phase**					
	Estimated Design Costs		1	sum	£15,557.64	£ 15,557.64
	Project Management (additional sum)		1	sum	£3,889.41	£ 3,889.41
					Item subtotal	£ 19,447.05
3	**Construction Phase (Scheme A)**					
	Estimated Construction Costs incl contingency		1	sum	£ 235,581.09	£ 235,581.09
	Project Management (additional sum)		1	sum	£ 42,869.29	£ 42,869.29
					Item subtotal	£ 278,450.38
4	**Maintenance Phase**					
	Estimated Annual Maintenance costs		1	sum	£11,753.17	£ 11,753.17
	Project Management (additional sum)		1	sum	£2,938.29	£ 2,938.29
					Item subtotal	£ 14,691.47
					Total Future Phases Costs excl VAT	£ 326,988.90
					VAT at 20%	£ 65,397.78
					Total Future Phases Costs incl VAT	£ 392,386.68

8.1 Landowner agreement

The legal services amounts in Table 4 above were derived from the following estimates of the likely costs of legal agreements.

Table 5: Estimate of Legal Services Costs

Their legal costs:		
	This item is difficult to determine. Some landowners will be content with a Memo of Understanding. Others will require a full legal agreement. This estimate is based on all landowners & tenants requiring a legal agreement with modest fees @£1000 per party per agreement	
List of possible agreements		**Relating to:**
1	Gleneagles Hotel	Route North
2	Gwest (Ochil Developments (UK) Ltd)	Route North
3	Blackford Farms	Route East
4	Drumlochy tenant	Route East
5	Gleneagles 1996 Trust	Route East
6	Gleneagles Farms tenant	Route East
7	Perth and Kinross Council (re tenant's liabilities)	Route South
8	Highland Spring (tenant)	Route South
9	Blackford Farms	Route South
Our' side legal costs:		
	Blackford Community Council or other body that will be the 'us' party	
	If one legal firm is carrying out all the agreements on 'our' behalf then some economies of scale should be possible. Therefore, an estimate of £600 per agreement has been proposed. This is for 9 agreements. If only one or two agreements are negotiated at a time then the higher figure of £1000 per agreement should be used.	

8.2 Detailed design

The project management fees for the design phase have been calculated in the following table.

Table 6: Derivation of Project Management fees for Design Phase

Breakdown of Additional Costs by Path Section					
		Additional Costs			
Section	Constrution cost (Scheme A) excl VAT	CDM compliance	Design costs rate	**Design costs**	**Project Man of Design at 20%**
Route North	£ 52,982.49	£ 666.67	15%	£ 8,047.37	£ 1,609.47
Route East	£ 101,435.85	£ 666.67	6%	£ 6,126.15	£ 1,225.23
Route South	£ 57,928.10	£ 666.67	9%	£ 5,273.53	£ 1,054.71
Totals (excl VAT)	£ 212,346.44	£ 2,000.00		**£ 19,447.05**	**£3,889.41**
				including PM costs	
Notes:	1. Design rate varies by route because:				
		Route North is technically much more challenging			
		Route South is proposed as a reinforced earth embankment			

8.3 Construction

The project management costs associated with the construction phase are estimated below.

Table 7: Derivation of Project Management fees for Construction Phase

Breakdown of Additional Costs by Path Section				
		Additional Costs		
Section	Constrution cost excl VAT	CDM compliance	Contingency at 10%	**Project Man at 20%**
Route North	£ 52,982.49	£ 666.67	£ 5,298.25	£ 10,729.83
Route East	£101,435.85	£ 666.67	£ 10,143.59	£ 20,420.50
Route South	£ 57,928.10	£ 666.67	£ 5,792.81	£ 11,718.95
Totals (excl VAT)	£212,346.44	£ 2,000.00	£ 21,234.64	**£ 42,869.29**

CDM is Construction Design & Management Regulations 2015. All construction projects require this and all parties have their role. This sum is for an independent CDM Compliance report.

8.4 Maintenance

The project management costs associated with the maintenance phase are estimated below.

Table 8: Derivation of Project Management fees for Maintenance Phase

Breakdown of proposed maintenance costs						
(Scheme A Construction)					**Proportional Costs**	
					External cost	**Project Man**
Section	Length, m	Area, m2	Rate	Annual Cost	80%	20%
Route North (unbound section)	541	1082	£ 2.68	£ 2,899.97	£ 2,319.97	£ 579.99
Route North (bound section)	219	438	£ 2.01	£ 880.44	£ 704.35	£ 176.09
Route East	1528	3056	£ 2.01	£ 6,143.00	£ 4,914.40	£ 1,228.60
Route South	1186	2372	£ 2.01	£ 4,768.06	£ 3,814.45	£ 953.61
		Totals (excl VAT)		£14,691.47	£11,753.17	**£2,938.29**
				Annual maint	External	PM proportion
				incl PM costs		

These costs are somewhat more speculative, but are based on Sustrans published rates. Weather and usage duty are two key variables that are difficult to predict. The maintenance schedule includes regular tasks such as path side vegetation management and litter picking, as well as irregular tasks such as on-demand maintenance. If Perth and Kinross Council are willing to take on some or all of the maintenance tasks then project management costs will be reduced or eliminated entirely.

8.5 Project management summary

Table 9: Summary of Future Phase Project Management Costs

Project Management Proposed Costs Summary			
Design phase			£ 3,889.41
Construction Phase (Scheme A)			£ 42,869.29
		Total excl VAT	£ 46,758.70
Maintenance Phase		Annual cost excl VAT	£ 2,938.29

VAT is an additional sum on these costs only if the project management consultant is VAT registered.

9 Conclusions

Public Consultation

The consultation with individuals was highly successful. A great deal of relevant opinion both quantitative and qualitative was collected. The key outcomes are:

- overwhelming support for a new cycle path on this route
- clear concern and fear of cycling beside or across the A9 trunk road
- significant potential for modal change from car & bus to bicycle
- tangible carbon benefits can be calculated
- clear concern and fear expressed about safety on current routes
- evidence that a high quality of surface for the path is required
- strong request for new path to be away from the road

Routes

The consultation together with the initial appraisal successfully identified destinations and desired routes. Existing routes were shown to be sub-optimal or undesirable. Three new routes were proposed that would better serve the community's need for utility cycle paths.

The three routes have been costed according to two different construction specifications:

Scheme A total construction costs are estimated as £334,380.45

Scheme B total construction costs are estimated as £457,556.61

Landowner Consultations

The consultations to date with landowners has been lengthy and in some cases very successful. However, Blackford is contained by one significant landowner. Further work is required to engage with the family directly rather than with proxies, in order to achieve the desired outcome.

Key Ongoing Issues

There are a number of issues, but the following require particular attention because of the risk they represent to the project:

- securing landowner consent
- maintenance arrangements must be in place to secure capital funding

10 Appendices

10.1 Appendix: Route Options Appraisal Report

Blackford Cycle Path Project

Route Options Appraisal

prepared by
Crispin Hayes Associates

May 2017

Crispin Hayes Associates 1

Introduction

This report records the content of a presentation made to a public meeting held by Blackford Community Council in respect of their Blackford Cycle Path project on 24th May 2017.

This report is an interim output of the Blackford Cycle Paths Feasibility Study.

Further information is currently available on

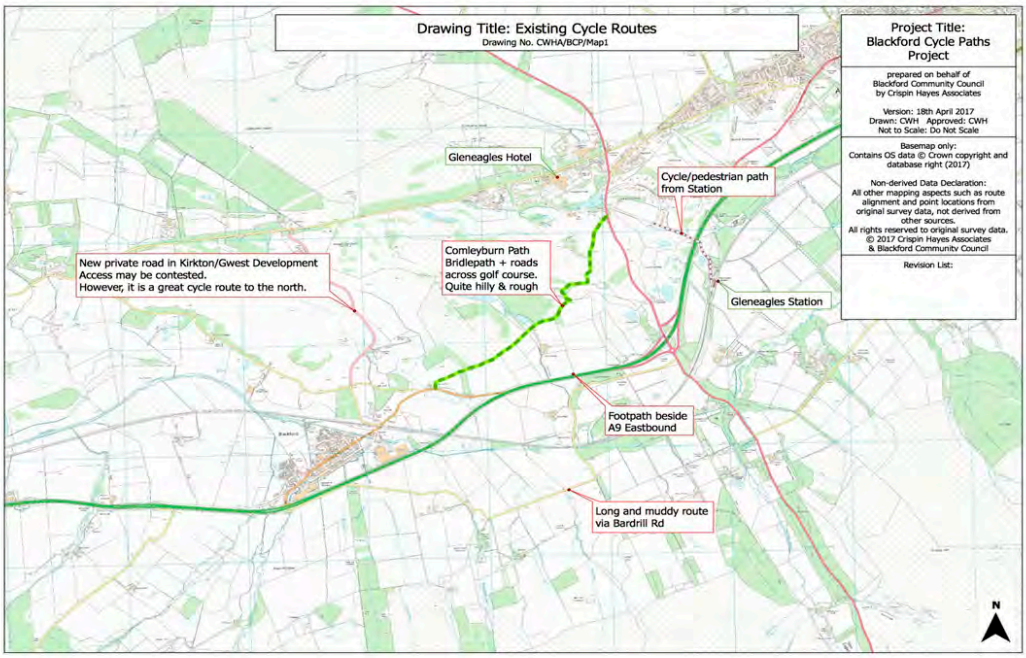
http://www.blackfordcommunitycouncil.org.uk

Background

The Community Council was awarded grants from TACTRAN, the Regional Transport Partnership, and the Climate Challenge Fund to identify the best and safest route for cycling from Blackford to Auchterarder and surrounding areas.

Blackford Community Council appointed consultants
Crispin Hayes Associates to carry out the Feasibility Study.

Existing paths



The routes considered focus on connecting Blackford to the north, the north-east, and the east; as defined in the Feasibility Study brief.

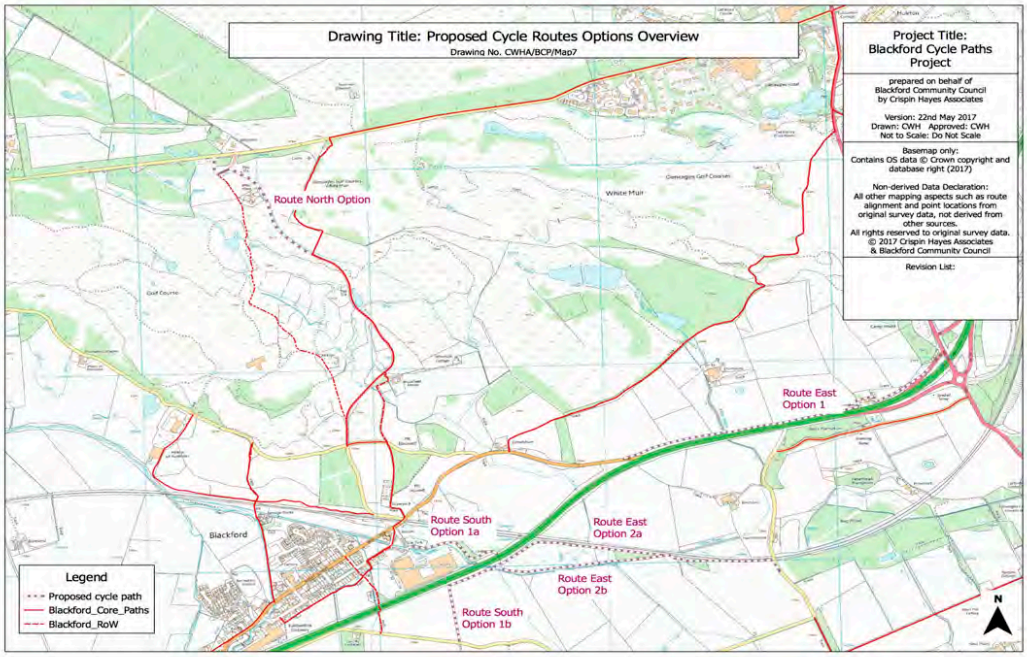
The routes in these directions that were considered were:

- The path on the north side of the A9
- The Comelyburn Path to Gleneagles golf course
- Roads and path north through the Kirkton/ Gwest area
- Bardrill Road

These (and other less relevant) routes were surveyed for their suitability to upgrade to cycle path standards. The assessment is given in the Appendix.

It was found that there were significant negative issues with all of these path routes.

Proposed new routes



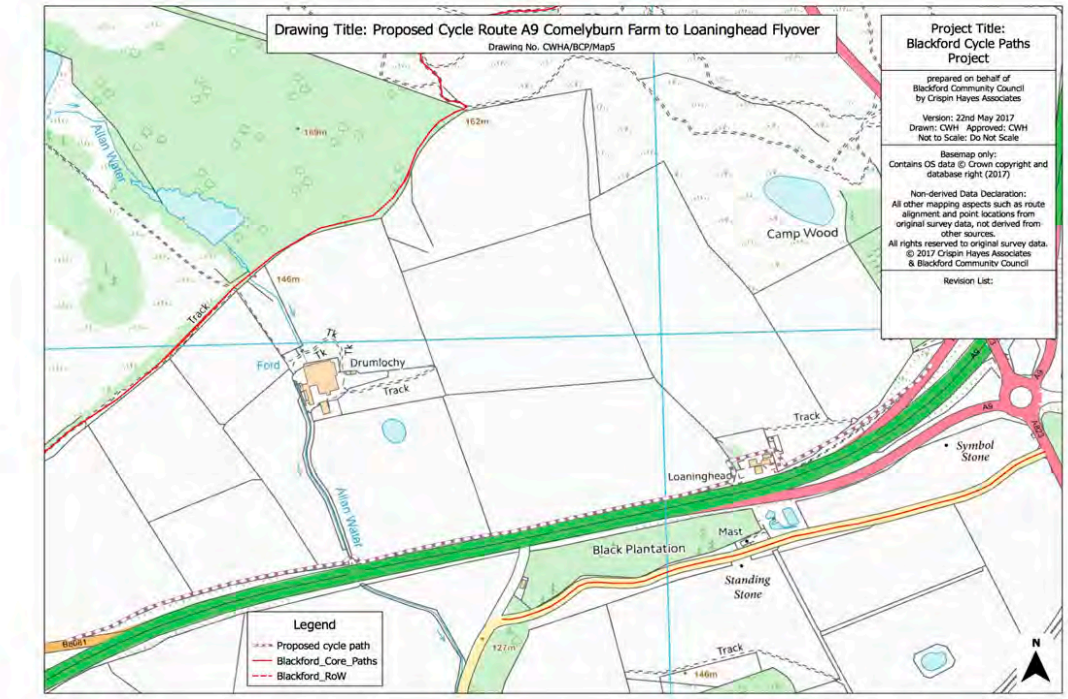
New routes are proposed to overcome the deficiencies of the existing routes.

The new routes are divided into the following directions:

- Route North
- Route East
- Route South

For some of these route directions more that one option is considered.

Route East; Option 1



The proposed new Route East Option 1 is on agricultural land to the north of the A9.

It starts from the slip road B8081, and follows the A9 but is located on the north side of the field wall. It passes north around the Loaninghead Filling Station. It rejoins the sliproad up to Loaninghead Junction.

Shared use is required on the sliproad pavements, at both start and end of route.

Shared use would be desirable on the pavements on the Loaninghead flyover.

B8081 slip road to A9 looking east.

The new path route is proposed to enter the farm land through the wall in the foreground of the picture.

The picture above shows the current A9 roadside footpath at the entrance to Drumlochy Farm looking east.

The proposed route would cross the farm access road around 10m from the A9 (out of shot to the left).

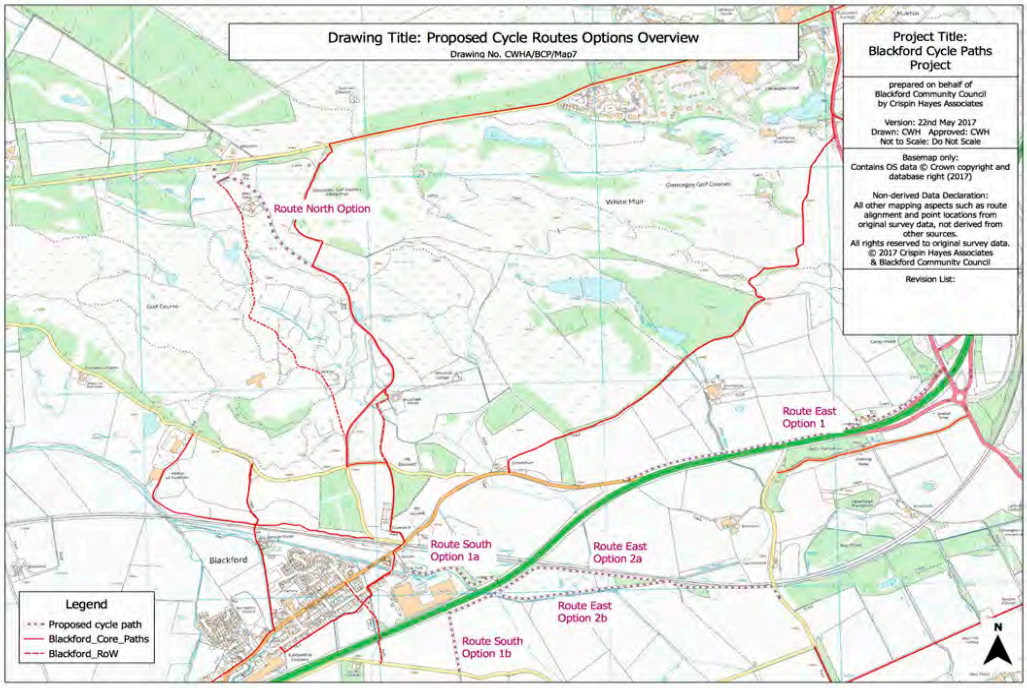
The proposed route would follow the inside of the farm wall (left hand side from this view)

The picture shows the existing footpath beside the A9 sliproad looking east as it approaches Loaninghead Junction.

Shortly after the proposed new route has passed to the north of the Loaninghead Filling Station, it will rejoin the existing pavement in the area shown above.

Criteria	Route East Option 1
Route description	North side of A9 behind farm wall
Safety incl perception of road safety by user	Safety very good until join Loaninghead slip road where shared use required, and improved signs and lines. Shared use needs to be designated across flyover to Station road entrance. Perception of safety likely to be high as separated from trunk road by stone wall and min 2-3m from carriageway.
Utility	Excellent. Entry close to Blackford and exit close to Gleneagles Railway Stn.
Directness	Excellent. Most direct route available
Onward routes	Gleneagles station good. North on A823 is moderate. Twisting road and at times heavy traffic. (Auchterarder Community Council area)
Ease of use in terms of topography and climbing	Good. Short climb of moderate gradient at Loaninghead slip.
Aesthetic experience.	Moderate. Protection and separation by farm wall improves experience, but it is still close to a busy trunk road.
Personal safety including perception by user	Likely to be good. The route does not pass through any secluded areas. Perception likely to be good as well.
Approximate section length	1.5km
Ease of Construction	Relatively easy. Construction access good. Drainage would need to be addressed as some areas on route are known to flood occasionally.
Value of land utilised	Permanent pasture. Approx 0.5 ha used.
Environmental impact of construction	Low. Current land use relatively low biodiversity. No known or potential biodiversity hotspots. Construction materials and process should not pose any additional environmental implact.

Route East; Option 2



Route East Option 2a and 2b are alternatives to Route East Option 1.

They utilise the A9 underpass (built for agricultural use) and then follow the southern boundary of the railway before rejoining Bardrill Road at a point where the road and railway intersect at a bridge.

The routes eliminate the at-grade crossing of the A9 and also bypass a substantial part of the worst sections of Bardrill Road.

The following photos are on Option 2a

The following pictures begin at the east of the proposed Route East Option 2, and are therefore looking west.

The proposed route begins in the foreground of the image, entering the farmland through the fence and following the headland of the field, first north to the railway boundary, and then west along that boundary.

Heading west along the railway boundary

Bog woodland around half way along the proposed route.

After emerging from the bog woodland area, Route East Option 2a continues heading west along the railway boundary to a small dry woodland.

Route East Option 2b deviates south from this point (out of shot to left) and follows a watercourse directly to the vicinity of the agricultural underpass.

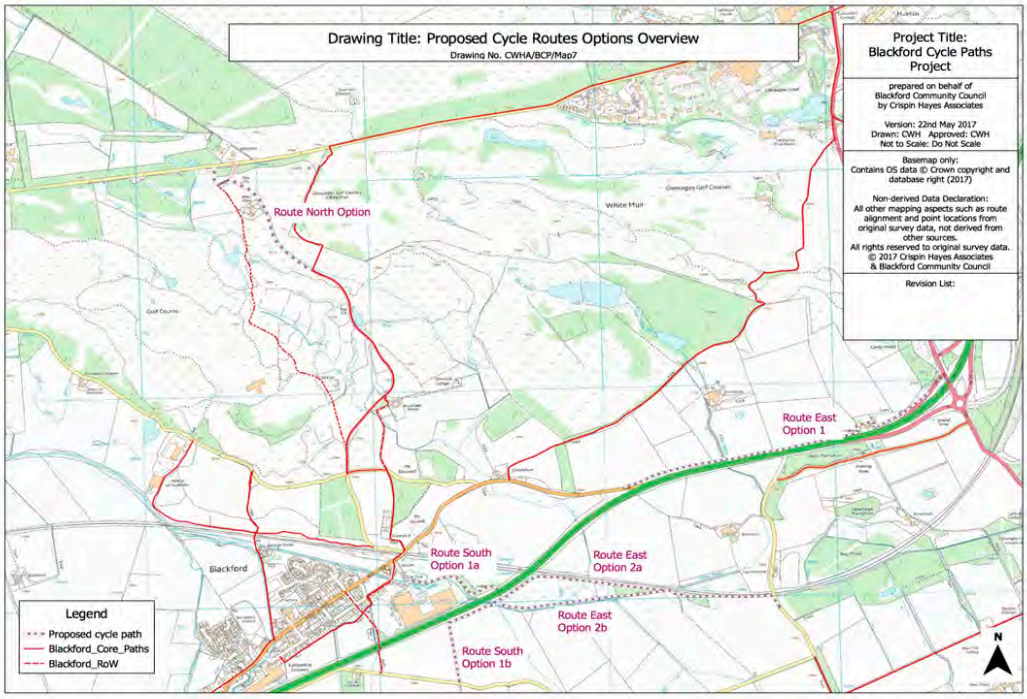
Continuing on Route East Option 2a; Area of bog beside the railway.

Reverse angle looking back east showing: pasture, then bog, then reeds and finally woodland.

Returning to look west again, the proposed new route Option 2a follows the railway then the A9 road boundary (middle ground of photo) until it reaches the agricultural underpass.

Agricultural underpass looking north. Big enough for a vehicle to pass through. Concrete base.

Criteria	Route East Option 2a
Route description	From south side of agricultural underpass, east to Bardrill Road, following railway boundary
Safety incl perception of road safety by user	Safety excellent on path route. Safety likely to be good once joined Bardrill Road. Around 70m on A823 where road safety likely to be more of an issue. Perception of road safety likely to be excellent.
Utility	Fair to good. Good for Gleneagles Station.
Directness	Moderate. Initial sections fairly directbut constraint of railway means that section of wider route on Bardrill Road heading north impedes the most direct route east.
Onward routes	Gleneagles station good. North on A823 is moderate. Twisting road and at times heavy traffic. (Auchterarder Community Council area)
Ease of use in terms of topography and climbing	Moderate to good. Initial sections very good. Two short climbs of steep gradient on Bardrill Road.
Aesthetic experience.	Excellent. Very pleasant route through countryside.
Personal safety including perception by user	Moderate. Route is away from habitation or other places with people. Though personal safety is likely to be very good, there may be a perception by some people, particularly at night, that personal safety is a concern.
Approximate section length	1.3km
Ease of Construction	The route crosses very marshy ground in some areas, and this would require careful construction and additional materials.
Value of land utilised	Permanent pasture, rough grazing, woodland. Approx 0.5ha used
Environmental impact of construction	Low to moderate. Marshy areas of reed and wet woodland are likely to have high biodiveristy. In addition, this is a relatively remote area in terms of human disturbance, and the latter would increase with the presence of a path.

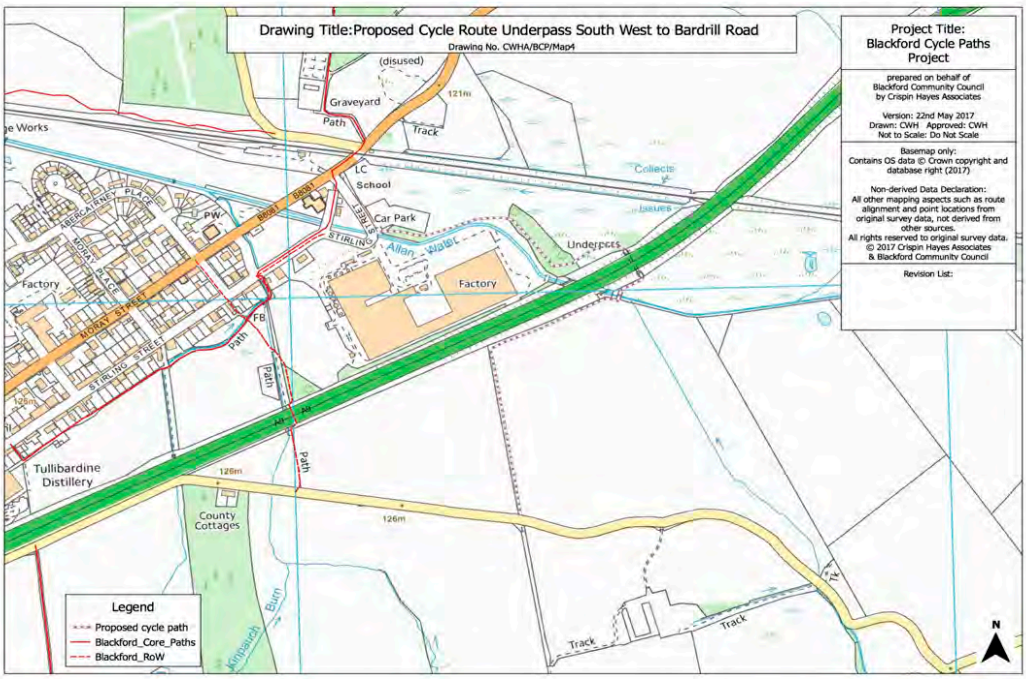


Route East Option 2b is assessed on the next page, the map above is shown to remind us of the these sibling routes.

Criteria	Route East Option 2b
Route description	From south side of agricultural underpass, east to Bardrill Road, following the ditch and then railway boundary. This is a more direct variation of Route East Option 2a
Safety incl perception of road safety by user	Safety good on path route, though it would follow a ditch which at times could be full of water. Safety likely to be good once joined Bardrill Road. Around 70m on A823 where road safety likely to be more of an issue. Perception of road safety likely to be excellent.
Utility	Fair to good. Good for Gleneagles Station.
Directness	Moderate. Initial sections fairly directbut constraint of railway means that section of wider route on Bardrill Road heading north impedes the most direct route east.
Onward routes	Gleneagles station good. North on A823 is moderate. Twisting road and at times heavy traffic. (Auchterarder Community Council area)
Ease of use in terms of topography and climbing	Moderate to good. Initial sections very good. Two short climbs of steep gradient on Bardrill Road.
Aesthetic experience.	Excellent. Very pleasant route through countryside.
Personal safety including perception by user	Moderate. Route is away from habitation or other places with people. Though personal safety is likely to be very good, there may be a perception by some people, particularly at night, that personal safety is a concern.
Approximate section length	1.2km
Ease of Construction	The route avoids most of the very marshy ground, and there will still be some areas that require careful construction and additional materials, though this will be considerably less than Route East Option 2a
Value of land utilised	Permanent pasture, rough grazing, woodland. Approx 0.5ha used
Environmental impact of construction	Low to moderate. Marshy areas of reed and wet woodland are likely to have high biodiveristy. In addition, this is a relatively remote area in terms of human disturbance, and the latter would increase with the presence of a path.

Highlighted boxes show those criteria with differences between Route East Option 2b and the preceding Option 2a

Route South; Option 1a



Route South Option 1a links the agricultural underpass with the village itself, at the east end of Stirling St.

Beginning at the agricultural underpass looking north.

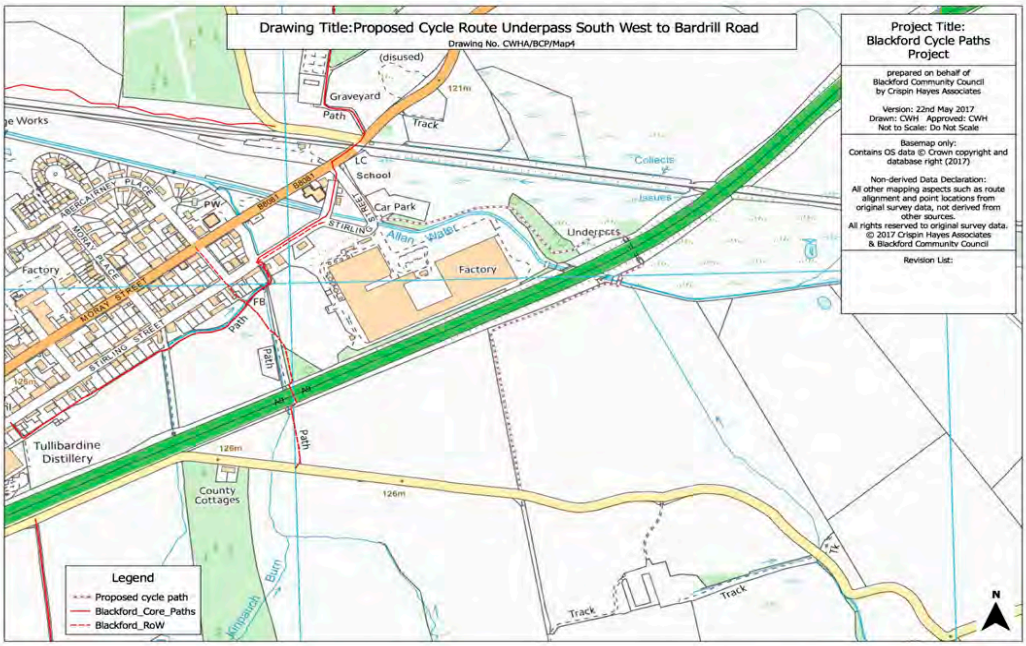
The proposed route heads out of re-vegated spoil heaps. The ground is firm and dry.

The proposed route heads north-west (direction of view) over the levelled spoil heaps to the strip of woodland in the middle ground behind which the Highland Spring plant lies.

Passing through the woodland strip, the proposed route comes down beside the Allan Water, following it along to the vicinity of the entrance of the Highland Spring staff car park at Stirling Street.

	Route South Option 1a
Criteria	
Route description	From corner of Stirling St on north of Allan Water, east to agricultural underpass of A9.
Safety incl perception of road safety by user	Safety on path route is very good. Significant margin (>3m) of separation from Allan Water. key safety issue is entry/exit from the public road Stirling St where greater awareness from HGV drivers approaching or leaving HS plant is required.
Utility	Good. Good route to safely get south of the A9 without an 'at-grade' crossing.
Directness	Good. Fairly direct route. Insiginificant additional length on cycle compared to alternative at-grade crossings.
Onward routes	Bardrill Road heading west. Possible to continue on roads and farm roads to Sheriffmuir junction. Can also head east on Bardrill Road though surface is poor and sections have mud and coarse gravel across surface.
Ease of use in terms of topography and climbing	Very good. Short and one easy incline.
Aesthetic experience.	Good. Beside Allan Water and then through woods to underpass.
Personal safety including perception by user	Good. Close to village and fairly open. Underpass is large (intended for agric vehicles).
Approximate section length	0.3 km
Ease of Construction	The first 150m crosses fairly free draining marsh ground adjacent to the Allan Water. This subsection will require additional material but retain a simple construction. The subsequent subsection is over old spoil heap and is easily to construct. Construction access is good. Path interface with Stirling St would need to be agreed with PKC and other stakeholders.
Value of land utilised	Unused ground.
Environmental impact of construction	Marshy area and woodland of some biodiversity value, but these are located beside a busy depot and are therefore already subject to disturbance. Little additional disturbance if the path is fenced to control dogs.

Route South; Option 1b



Route South Option 1b links the agricultural underpass with Bardrill Road

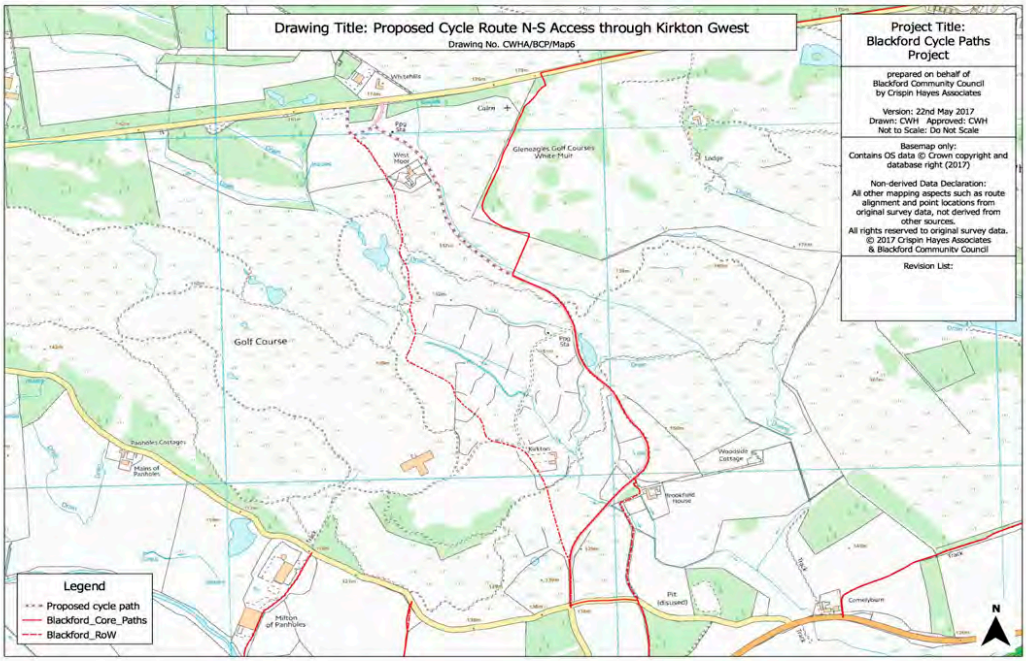
The photos begin at the agricultural underpass and head southwest towards Bardrill Road

The proposed route follows the A9 boundary fence. A concrete bridge in the middle ground facilitates crossing the Allan Water.

The proposed route continues along the A9 boundary before turning south (left) to follow an intermediate field boundary (in middle ground of photo) to the Bardrill Road.

	Route South Option 1b
Criteria	
Route description	From underpass south to Bardrill Road. Following the A9 trunk road boundary and then a fence line.
Safety incl perception of road safety by user	Excellent. Away from traffic. Perception likely to be same. Stock fencing will be required to separate cattle from people + dogs. (Landowner communications)
Utility	Good. Good route to Bardrill Road without 'at-grade' crossing.
Directness	Good. Fairly direct route. Insiginificant additional length on cycle compared to alternative at-grade crossings.
Onward routes	Bardrill Road heading west. Possible to continue on roads and farm roads to Sheriffmuir junction. Can also head east on Bardrill Road though surface is poor and sections have mud and coarse gravel across surface.
Ease of use in terms of topography and climbing	Very good. Short and one easy incline.
Aesthetic experience.	Moderate to Good. Open pasture though A9 within awareness.
Personal safety including perception by user	Good. Though not beside village, still fairly close and within view of various roads.
Approximate section length	0.7 km
Ease of Construction	Straight forward construction over agricultural land. Construction access good.
Value of land utilised	Agricultural pasture.
Environmental impact of construction	Little or no environmental impact.

Route North



Route North is a means of getting safely and directly from Blackford to the Braco-Gleneagles Road.

The Core Path is shown as a solid red line. The Claimed Right of Way (TP191) is given as a dotted red line which followed an old farm road (which is shown on the OS 1st Edition of 1860s). Where the proposed route deviates from the Core Path at the north, it is shown as a purple dotted line.

The Gwest North-South access road is *de facto* a great route to cycle through. However, planning permission has been granted for a gatehouse at the north end, and although initially pedestrian access was recommended, the granted permission does not have pedestrian access.

An alternative solution is proposed using the access road but exiting onto the Braco-Gleneagles Road via the Claimed Right of Way.

From Braco-Gleneagles Road, looking south.

Location where Gwest main access road joins the public highway. This is site of proposed Gatehouse which has been granted planning permission. The gate is currently locked outside office hours. There is no pedestrian access.

From Braco-Gleneagles Road, looking south.

Location where Claimed Right of Way (TP191) joins public highway at its northern extent. Also access to dwelling Westmoor.

A few hundred metres further south along Claimed Right of Way (TP191) heading towards residential dwelling Westmoor.

South of Westmoor, the farm road which Claimed Right of Way (TP191) follows, no longer exists as a result of landscape remodelling for golf course construction.

General view of Gwest main North – South access road in the middle of the site.

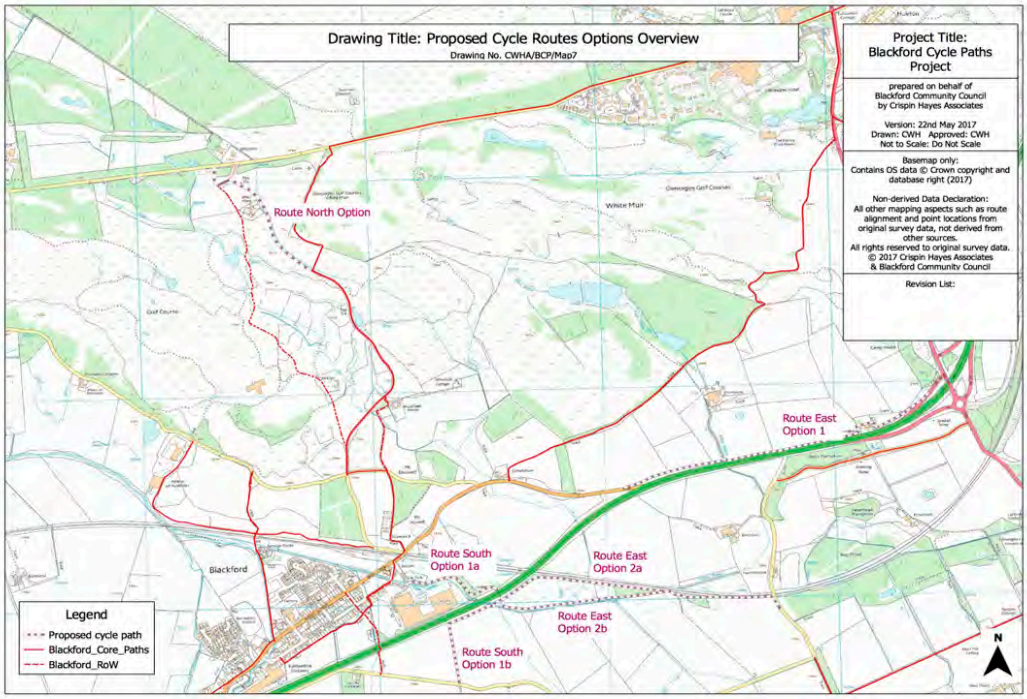
Picture looking north at junction of Slack Dale with Panholes Road.

The southern end of the Gwest North-South access road is also a Core path route, and as well as the southern end of Claimed Right of Way (TP191).

The pedestrian gate at the right is not locked.

Criteria	Route North Option
Route description	Utilise new North-South access road on Gwest development. Southern section follows Core Path route, but remains on road rather than deviating east onto Gleneagles golf course. At north, exit to Braco road along Claimed RoW.
Safety incl perception of road safety by user	Very good. Private road, little or no traffic currently, though this will increase to a limited extent. Perception likely to be very good.
Utility	Good. A good route to the Muirton/Gleneagles Hotel area making them within easy reach by bike from Blackford.
Directness	Moderate. Not direct but sufficiently good in terms of other factors to make it useable.
Onward routes	Braco - Muirton road is fairly quiet. A pavement and streetlighting exists.
Ease of use in terms of topography and climbing	Path route being considered has a steady moderate incline when heading north. At no point is it excessive. There is a short sharp climb from Blackford up to the Panholes road.
Aesthetic experience.	Moderate. Within the golf development. Housing development may change aesthetic.
Personal safety including perception by user	Very good. Open, visible. May be streetlit.
Approximate section length	little or none.
Ease of Construction	Little or no construction required
Value of land utilised	Existing unadopted road.
Environmental impact of construction	No environmental impact.

Recommendations



A recommendation was made to proceed to develop:

- Route East Option 1 – north side of A9
- Route South Option 1a and 1b – agric underpass
- Route North Option – Kirkton/Gwest new road

The public meeting held on 24th May 2017 agreed to take all these routes forward to landowner consultation.

Addendum:

Ongoing consultations with landowners and land managers since the meeting have modified some of these routes.

10.2 Appendix: Consultation webform for individuals

How about better cycle paths for Blackford ?

Linking us better to neighbouring areas

Blackford Community Council has a project to improve paths for walking and cycling in the Blackford area. The focus is on utility journeys, getting to nearby places, and how improved paths might replace some local trips by vehicle.

More about the project on our website and Facebook pages.

Have your say here!

How much would you support the creation of off-the-road paths for cyclists & pedestrains in the Blackford area? *

1 2 3 4 5

No support ○ ○ ○ ○ ○ Strong support

How happy are you (or would you be) to cycle on the existing path beside the A9 from Blackford to the Loaninghead flyover, and which is not separated from the road by a barrier or fence?

1 2 3 4 5

Not happy at all ○ ○ ○ ○ ○ Very happy as it is

What are your likely destinations from Blackford if good off-the-road cycle paths were available? If you come to Blackford for work, please do this section thinking about your return journey home. (tick all that you are interested in using a bike on). *

- ☐ Auchterarder village
- ☐ Gleneagles Hotel & Muirton
- ☐ Kirkton/Gwest area
- ☐ Gleneagles Railway Station
- ☐ To the north towards Muthill
- ☐ To the east towards Greenloaning or Braco
- ☐ To the south of the A9 towards Sherriffmuir
- ☐ Other

If there were good quality off-the-road cycle paths to these locations, how likely would you be to use it ? *

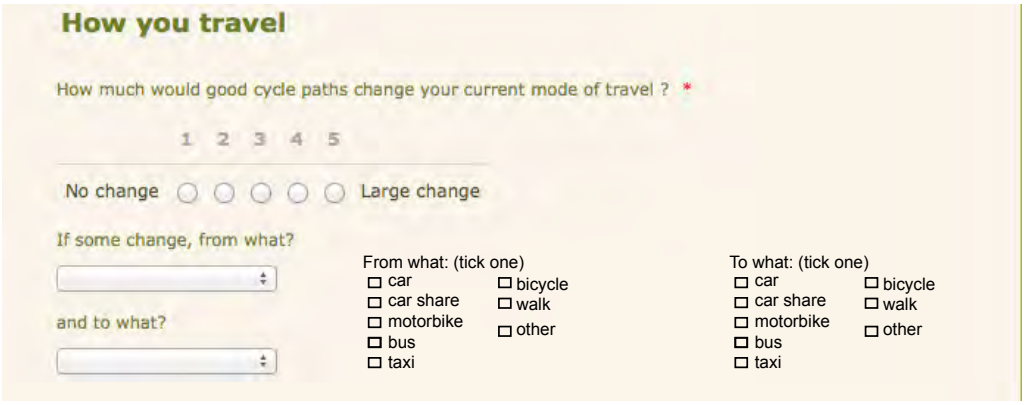
1 2 3 4 5

Not very likely ○ ○ ○ ○ ○ Very likely

And how often do you feel would be realistic for you? *

1 2 3 4 5

Hardly ever ○ ○ ○ ○ ○ Daily use



How you travel

How much would good cycle paths change your current mode of travel ? *

1 2 3 4 5

No change ○ ○ ○ ○ ○ Large change

If some change, from what?

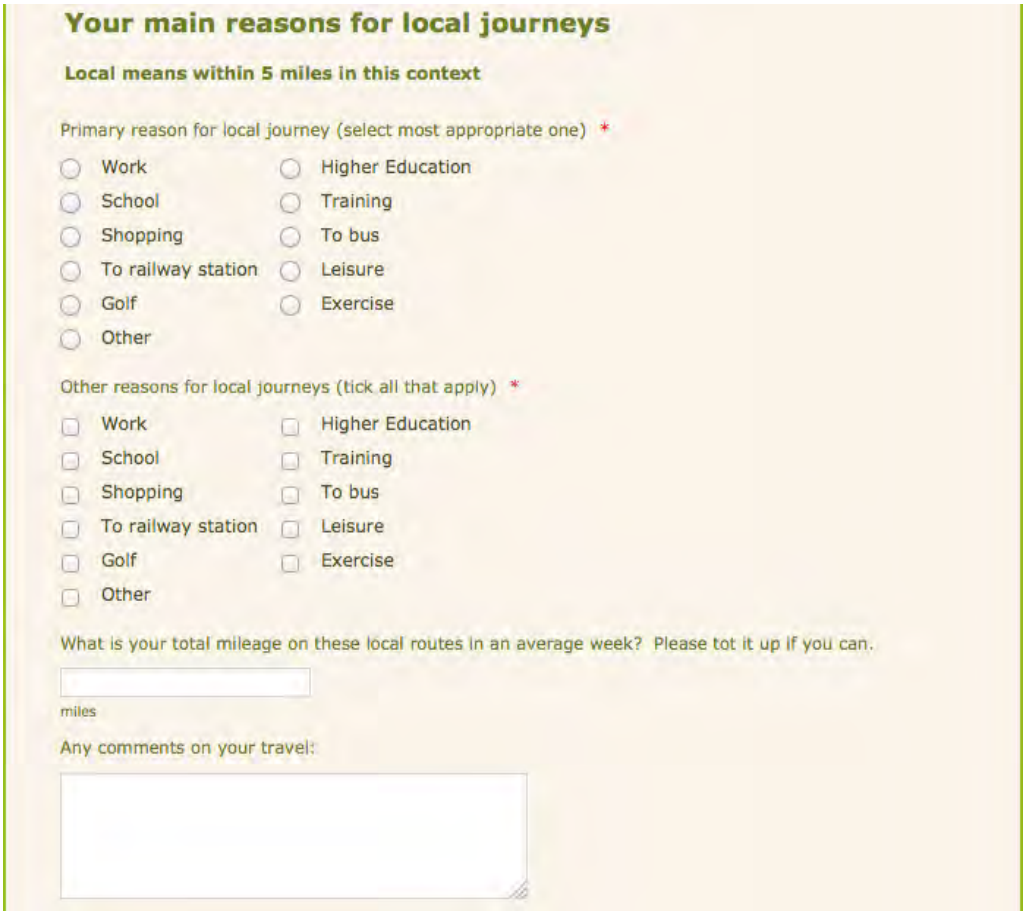
and to what?

From what: (tick one)

- ☐ car
- ☐ car share
- ☐ motorbike
- ☐ bus
- ☐ taxi
- ☐ bicycle
- ☐ walk
- ☐ other

To what: (tick one)

- ☐ car
- ☐ car share
- ☐ motorbike
- ☐ bus
- ☐ taxi
- ☐ bicycle
- ☐ walk
- ☐ other



Your main reasons for local journeys

Local means within 5 miles in this context

Primary reason for local journey (select most appropriate one) *

- ○ Work
- ○ School
- ○ Shopping
- ○ To railway station
- ○ Golf
- ○ Other
- ○ Higher Education
- ○ Training
- ○ To bus
- ○ Leisure
- ○ Exercise

Other reasons for local journeys (tick all that apply) *

- ☐ Work
- ☐ School
- ☐ Shopping
- ☐ To railway station
- ☐ Golf
- ☐ Other
- ☐ Higher Education
- ☐ Training
- ☐ To bus
- ☐ Leisure
- ☐ Exercise

What is your total mileage on these local routes in an average week? Please tot it up if you can.

miles

Any comments on your travel:

Nature of path

If you are a cyclist, how important is the quality of the path surface, eg. free from puddles and mud

1 2 3 4 5

Unimportant ○ ○ ○ ○ ○ Very important

If the surface is poor, how much does this negatively affect your likely use of the path?

1 2 3 4 5

Unaffected ○ ○ ○ ○ ○ Strongly affected

How important is the nature of the route to your uptake on using it;

- how much do you like to use cycle paths painted on a rural road

1 2 3 4 5

Don't like ○ ○ ○ ○ ○ Really Like

- how much do you like to use cycle paths on a pavement beside the road

1 2 3 4 5

Don't like ○ ○ ○ ○ ○ Really Like

- how much do you like to use cycle paths away from the road on separate routes?

1 2 3 4 5

Don't like ○ ○ ○ ○ ○ Really Like

Any comments on the nature of a cycle path?

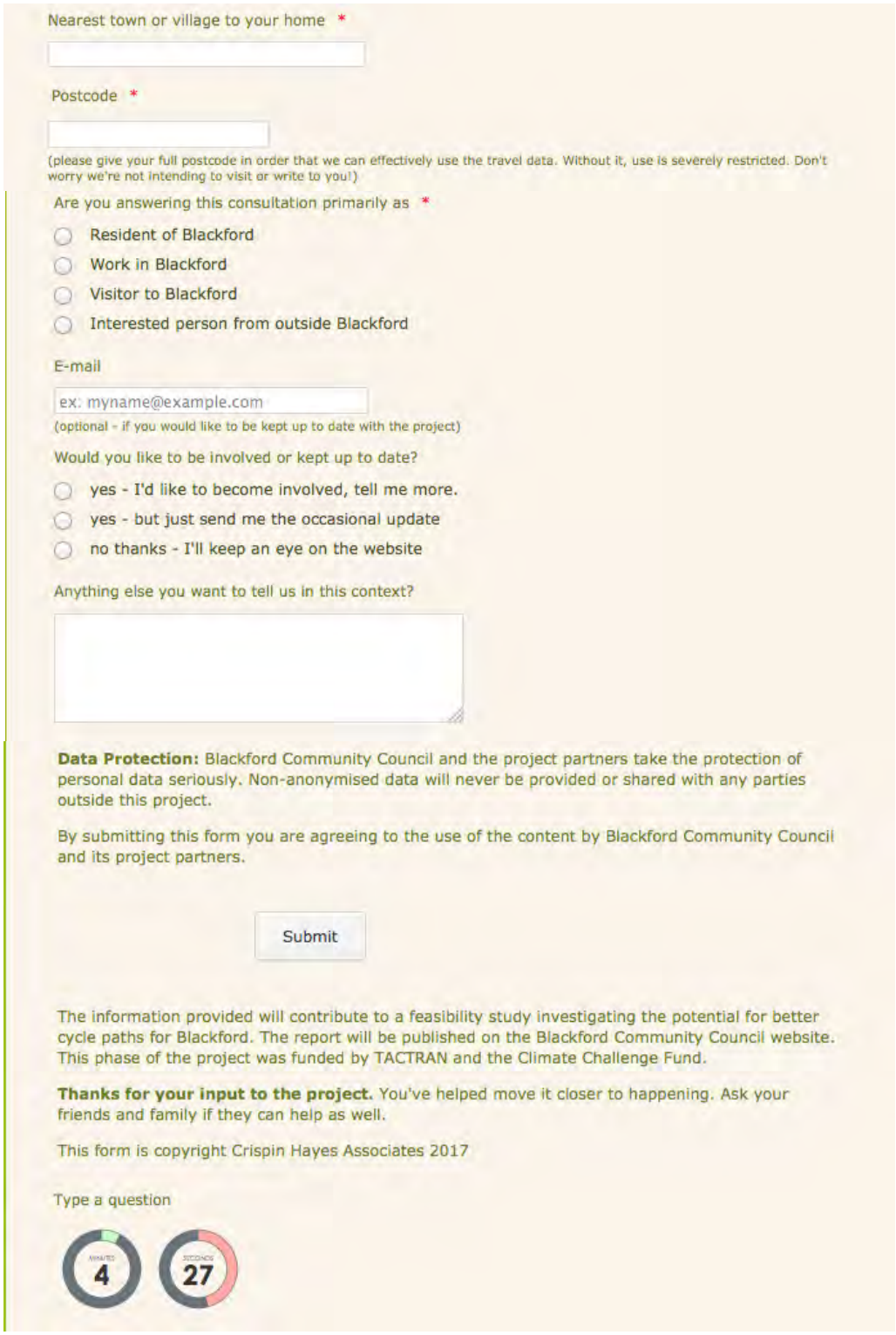
Your profile

Gender

○ Female ○ Male ○ Prefer not to say

Age range (years)

○ 0-15 ○ 16-24 ○ 25-34
○ 35-44 ○ 45-54 ○ 55-65
○ 65+



Nearest town or village to your home *

Postcode *

(please give your full postcode in order that we can effectively use the travel data. Without it, use is severely restricted. Don't worry we're not intending to visit or write to you!)

Are you answering this consultation primarily as *

- Resident of Blackford
- Work in Blackford
- Visitor to Blackford
- Interested person from outside Blackford

E-mail

ex: myname@example.com

(optional - if you would like to be kept up to date with the project)

Would you like to be involved or kept up to date?

- yes - I'd like to become involved, tell me more.
- yes - but just send me the occasional update
- no thanks - I'll keep an eye on the website

Anything else you want to tell us in this context?

Data Protection: Blackford Community Council and the project partners take the protection of personal data seriously. Non-anonymised data will never be provided or shared with any parties outside this project.

By submitting this form you are agreeing to the use of the content by Blackford Community Council and its project partners.

Submit

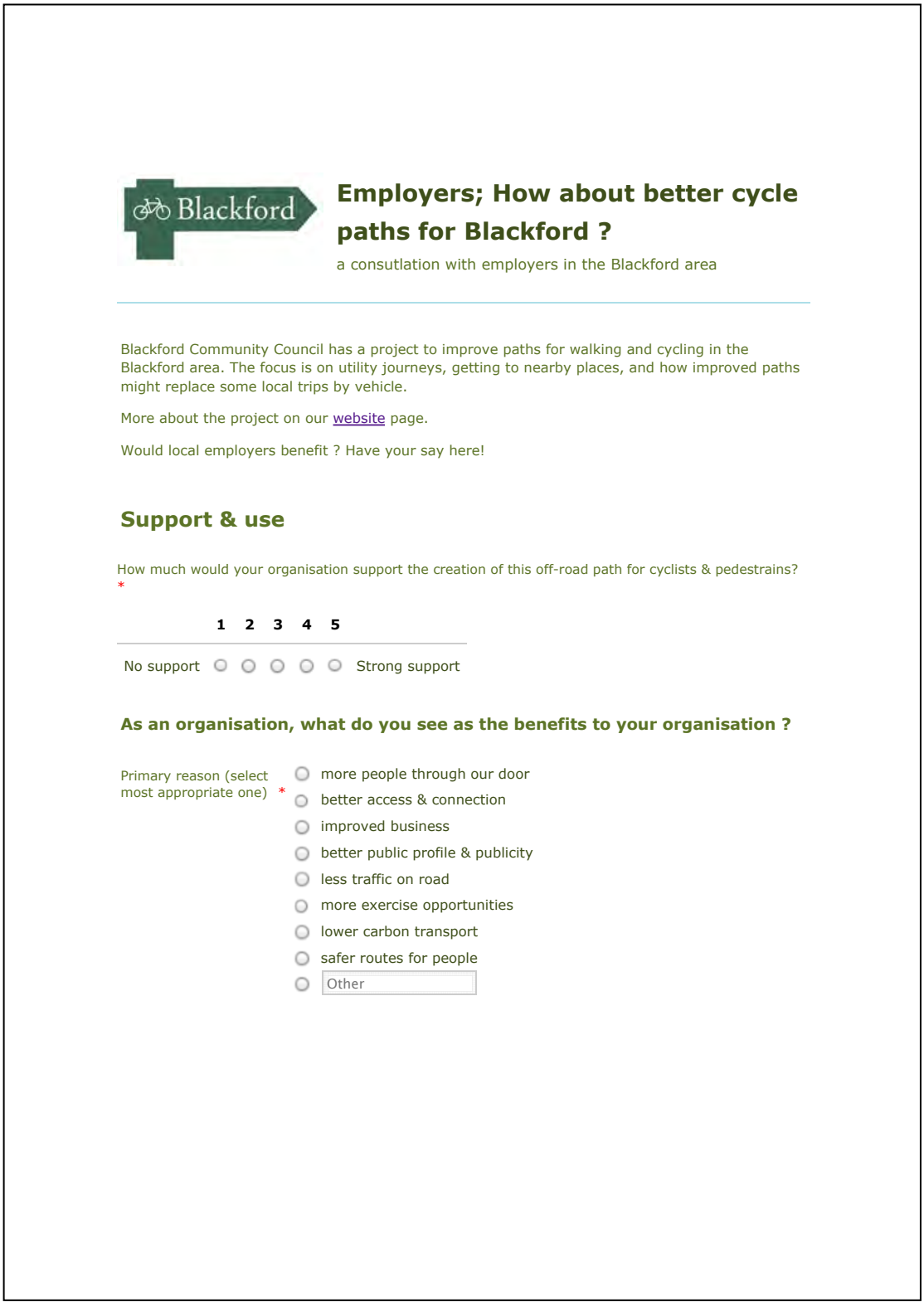
The information provided will contribute to a feasibility study investigating the potential for better cycle paths for Blackford. The report will be published on the Blackford Community Council website. This phase of the project was funded by TACTRAN and the Climate Challenge Fund.

Thanks for your input to the project. You've helped move it closer to happening. Ask your friends and family if they can help as well.

This form is copyright Crispin Hayes Associates 2017

Type a question

10.3 Appendix: Consultation webform for organisations



Blackford

Employers; How about better cycle paths for Blackford ?

a consutlation with employers in the Blackford area

Blackford Community Council has a project to improve paths for walking and cycling in the Blackford area. The focus is on utility journeys, getting to nearby places, and how improved paths might replace some local trips by vehicle.

More about the project on our website page.

Would local employers benefit ? Have your say here!

Support & use

How much would your organisation support the creation of this off-road path for cyclists & pedestrains? *

1 2 3 4 5

No support ○ ○ ○ ○ ○ Strong support

As an organisation, what do you see as the benefits to your organisation ?

Primary reason (select most appropriate one) *

- ○ more people through our door
- ○ better access & connection
- ○ improved business
- ○ better public profile & publicity
- ○ less traffic on road
- ○ more exercise opportunities
- ○ lower carbon transport
- ○ safer routes for people
- ○ Other

Other reasons (tick all that apply)

- [ ] more people through our door
- [ ] better access & connection
- [ ] improved business
- [ ] better public profile & publicity
- [ ] less traffic on road
- [ ] more exercise opportunities
- [ ] lower carbon transport
- [ ] safer routes for people
- [ ] Other

Any comments on the benefits ?

Are you able to quantify the likely benefits, for example in terms of visitors, or revenue?

And do you see any dis-benefits or problems?

- [ ] loss of privacy
- [ ] waste of money
- [ ] litter
- [ ] dogs
- [ ] noise
- [ ] Other

Any comments on dis-benefits or problems?

Modal change

How much would the path change your people's mode of travel ? *

	1	2	3	4	5	
No change	○	○	○	○	○	Large change

If some change, from what?

and to what?

What are their main reasons for travelling on this route?

Primary reason (select most appropriate one) *

- ○ Work
- ○ Higher Education
- ○ School
- ○ Training
- ○ Shopping
- ○ To travel hub
- ○ Leisure
- ○ Golf
- ○ Exercise
- ○ Other

Other reasons (tick all that apply)

- ☐ Work
- ☐ Higher Education
- ☐ School
- ☐ Training
- ☐ Shopping
- ☐ To travel hub
- ☐ Leisure
- ☐ Golf
- ☐ Exercise
- ☐ Other

Do you have a organisational travel plan?

- ○ Yes
- ○ Not yet but we're working on one
- ○ No

Any comments on your people's travel?

Nature of path

How important is the quality of the path surface, eg. free from puddles and mud, for your people ?

	1	2	3	4	5	
Unimportant	○	○	○	○	○	Very important

If the surface is poor, how much does this affect your people's likely use of the path?

	1	2	3	4	5	
Unaffected	○	○	○	○	○	Strongly affected

How important do you think is the nature of the route to your people's uptake on using it;

- how much do your people like to use cycle paths painted on a rural road

	1	2	3	4	5	
Don't like	○	○	○	○	○	Really Like

- how much do your people like to use cycle paths on a pavement beside the road

	1	2	3	4	5	
Don't like	○	○	○	○	○	Really Like

- how much do your people like to use cycle paths away from the road on separate routes?

	1	2	3	4	5	
Don't like	○	○	○	○	○	Really Like

Any comments on the nature of a cycle path?

Your organisation profile

How many employees do you have on site *

How many visitors do you have annually *

Type of organisation (tick most appropriate) *

- ☐ business
- ☐ retailer
- ☐ sport
- ☐ manufacturer
- ☐ consultancy
- ☐ hospitality
- ☐ leisure
- ☐ education
- ☐ energy
- ☐ not-for-profit
- ☐ farm
- ☐ golf
- ☐ school
- ☐ wholesaler
- ☐ community org
- ☐ Other

Are you a member or part of any of these?

- ☐ Tourist Board
- ☐ NFU
- ☐ Scottish Land and Estates
- ☐ Perth and Kinross Council
- ☐ Community Council
- ☐ Other

Organisation name

(optional - useful if you would like to be part of shaping this project)

Nearest town or village to your main premises *

Postcode *

(please give your full postcode in order that we can effectively use the travel data. Without it, use is severely restricted. Don't worry we're not intending to visit or write to you!)

E-mail ex: myname@example.com

(optional - if you would like to be kept up to date with the project)

Would you like to be involved or kept up to date?

- yes - I'd like to become involved, tell me more.
- yes - but just send me the occasional update
- no thanks - I'll keep an eye on the website

Anything else you want to tell us in this context?

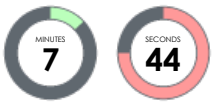
Data Protection: Blackford Community Council and the project partners take the protection of personal data seriously. Non-anonymised data will never be provided or shared with any parties outside this project.

By submitting this form you are agreeing to the use of the content by Blackford Community Council and its project partners.

Submit

The information provided will contribute to a feasibility study investigating the potential for better cycle paths for Blackford. The report will be published on the Blackford Community Council website. This phase of the project was funded by TACTRAN and the Climate Challenge Fund.

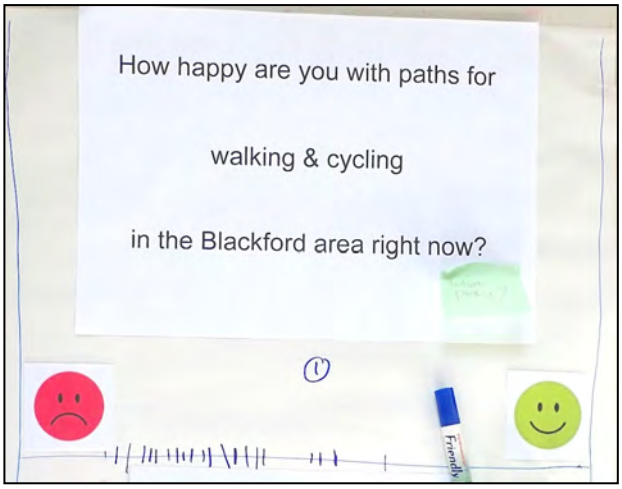
Thanks for your input to the project. You've helped move it closer to happening. Ask your friends and family if they can help as well.



10.4 Appendix: Public Consultation Drop-In Launch Event

Figure 15: Introductory display and H diagram

Figure 16: Opening question; How happy are you with the current situation



Participants put a tick across the baseline to indicate how happy they felt with the current situation. As can be seen from the bottom of the above figure, participants were clearly unhappy about the current situation.

What are the Aspects we Like ?

just cycling	*wheelchair access*
Walk to White Muir and the old curing pond :)	*"Roads to the north"*
Footpath along the two main streets in Blackford	*The scenery etc. That we can cross the railway in the village at both level crossing and path to Braco - don't want to lose this.*
"Wide open spaces	*Wonderful scenery*
Fresh air"	*"Scenery*
Fresh air"	*Healthy lifestyle*
Encouraging the younger generation to live an active life	*Quiet rural roads*
"Beautiful scenery	*Quiet - apart from A9"*
Fresh air sense of well being exercise	*"Ochils*
Glen Devon	*Sheriffmuir"*
"Bardrill Rd	*Path through golf course*
Sherriffmuir Rd	*Beautiful scenery*
Access to Braco, Stirling, Comrie etc."	*"Like all the walks especially Comely Burn/Gleneagles and Brookfield*
Also Kinpoch Hill and the Kirkton Walk which has spectacular views to the west"	*The areas you can walk to once you pass the barriers of the A9 and the railway*
The areas you can walk to once you pass the barriers of the A9 and the railway	*It's beautiful*
"Level crossing (white gate) on way to Braco Rd	*Bardrill Road + path up to cairn south of Blackford (towards reservoirs)"*
Great workout! Hills whichever way you cycle	*Countryside is Fab, Great view + wildlife*

While there is quite a variety of topics above, it does appear that the emergent theme is the countryside and the scenery.

What Aspects are Not So Good

"Footpath along side A9 north

Farmers leaving loads of mud and gravel on the roads - especially true on Bardrill Road

Separation of wall + improve surface"

A9 traffic! :(

Path from the railway crossing to A9 path via [?]Petrol station is not maintained.

"A9 - not comfortable crossing it either walking or cycling to get to Bardrill Road - too much traffic.
If the level crossing is closed for repairs/maintenance cut off from that side of the village

Blackford is ringed by roads not safe to cycle on

Lorries from Highland Spring (largely) driving through the village

Keeping children fit in this [?]ooyin age must be a priority for us all"

A9

"No safe crossing across A9

"A9 path is almost unusable

"-Too much traffic HGV's

Cyclists have to use very busy road from garage at Loaning Head along A823 to access Auchterarder. Same for cyclists using Bardrill road to same."

Most cyclists have thin tires (road tires) which need a very smooth surface

Exit from Kirkton Walk at back Braco-Auchterarder road

Nowhere safe to cycle without worry of vehicles

Unsafe to walk or cycle due to speed of traffic

Health and Safety. Lorries don't stop at Highland Spring entrance. Lorries don't give way.

Improve A9 footpath

Love to see a bridge crossing or underpass on the A9

Crossing the A9. ditto.

Would not cycle alongside it."

Path from Aucherarder to Blackford, please. Don't have a mountain bike !

Have to walk across A9 at southeast of village

"No safe cycling paths to [?]some children

Access to south is hard - the A823 between Gleneagles and the flyover is awful.

Killer A9 to cross

Lack of safe cycle tracks"

Bardrill Rd - while nice route really needs upgrading"

- Dangerous surfaces"

No safe crossing across A9, too much traffic, took me 10 mins to safely wait for traffic to stop so I could walk with bike across

"Brookfield signage has not been replaced after disappearing at Ryder Cup preparations?

Footpath along A9 very poor

Clearly the A9 and road safety are themes of comments about aspects that are not so good.

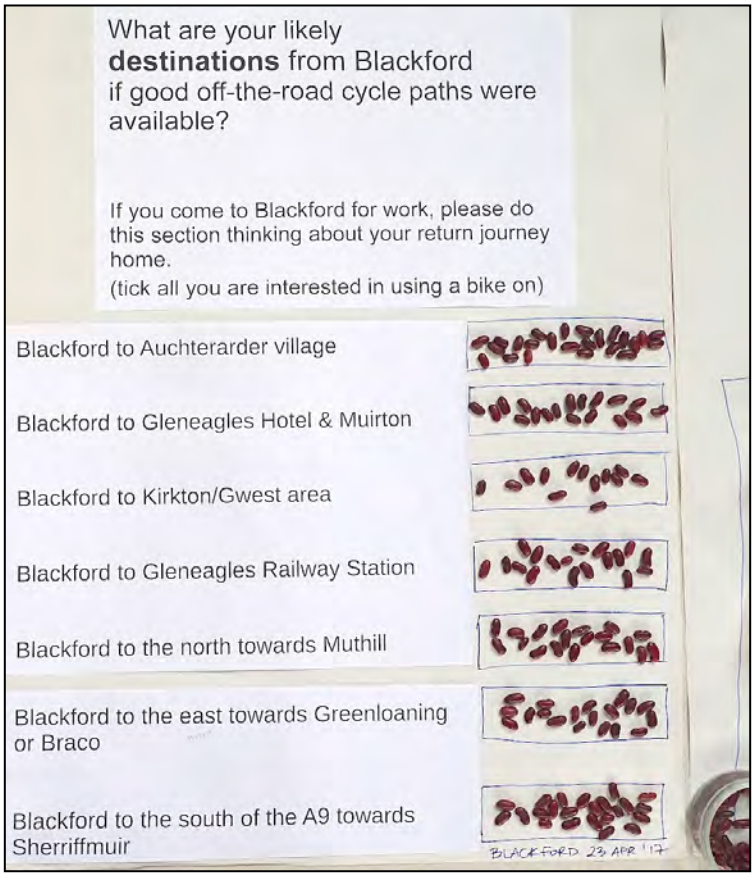
What we would like to happen?

Get gates unlocked on new golf course to cycle across from Blackford to Gleneagles	*Local bus service is good to Perth and Sterling and intervening places. If bikes could be accomodated on these buses it would open up cycling for people in Blackford. In other countries cycle racks are placed on the bus and cycles can be placed on these.*
Better signage for large lorries our of and into Highland Spring e.g. stop sign, beware of cyclists etc.	*Better maintenance of cycle ways, clearing bushes etc,*
Paths kept clear of bebris. Pot holes sorted . A9 paths complete re-done. More cycle paths off road.	*Path along A9 to left off farmers wall*
Access across a9 - underpass or flyover for cycling	*Bridge over the A9 or underpass :)*
Create a cycle and walking track for all the village to use and enjoy SAFELY! :)	*Proper cycle paths - not badly surfaced roads*
Safe crossing over or under A9 to Bardrill Road	*Sustrans style cycle paths*
Access under or bridge over A9 to Bardrill Rd.	*Safe access over the A9, could be underpath or bridge? Have 4 young grandchildren who would be keen to cycle but not safe for them as it is.*
More access needed for pedestrians NOT cattle	*More cycle and walking routes upgrade existing*
Circumferential walking path around entire village: as much of perimeter as possible	*New path for cycling and walking far from traffic!*
Improve Comlie Burn track Barddrill Rd. New tracks?	*Better tracks between Auchterader and Blackford*
"Path along routes e.g. to Aucherader and Gleneagles station	*Bridge underpass for A9"*
Access across Gleneagles West to Gleneagles road.	*Blackford could be E-W hub for Sth Perthshire w/ imaginative route creation*
More attention from council on existing paths network. Is anyone in council keeping a weather eye on what is going on. A sensible route for cyclists.	*As many links as possible between various nearby areas north of A9 (including golf courses) - to allow varied lengths to walks/runs*

Many suggestions have been provided but again these focus on the A9 trunk road as well as improved paths.

Likely Destinations

Figure 17: What are your likely destinations from Blackford



The matrix shows that likely destinations and asks participants to put one bean counter on each one they would likely use.

It seems clear that most destinations are popular, but in particular Auchterarder (24 human beans) and to the south of the A9 towards Sherriffmuir (23 human beans).

A further question asks what other locations would be likely destinations. The responses are given below.

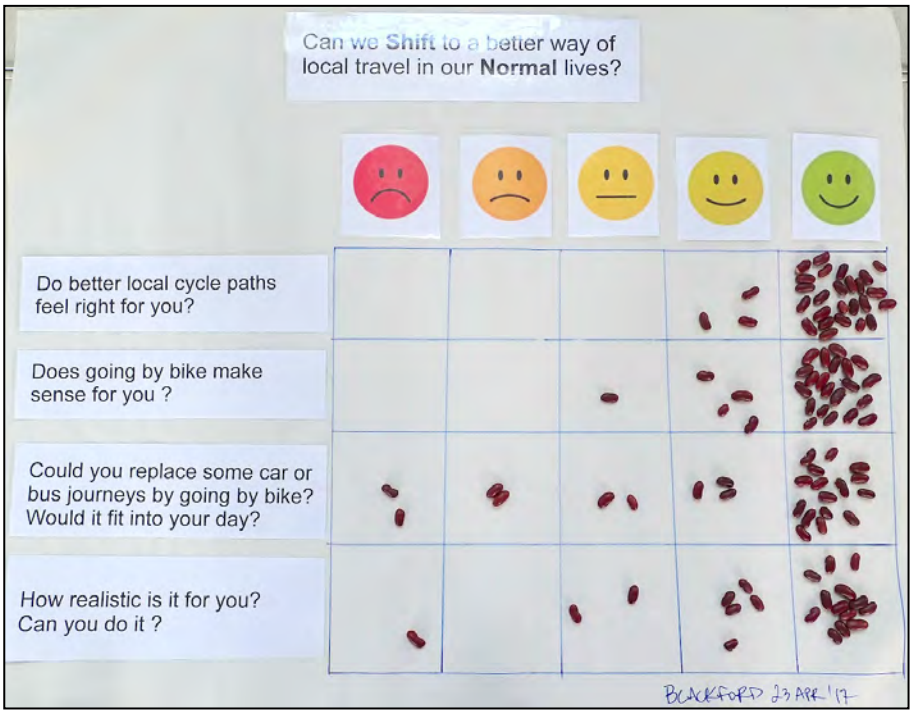
Halfway house	*Glendevon*
Dunning	*Bridge of Earn, Comrie, Forteviot, Dunning, Fife*
Duchally, Bridge of Earn & Perth/Fife	*Duchally*
Dunblane Rail station	*Dunblane via Braco*
Dunblane via Greenloaning safely	*Fife, Dunfermline, Edinburgh*
Glen Devon footpaths	*Glendevon*
Glendevon	*Glendevon*
Glendevon	*Glendevon*
Stirling and south	*Vicars Bridge + Saline*

The other locations stretch far and wide, and many outside the remit of this project. However, the most popular other destination is Glendevon which is within our distance

criteria. If we are able to create a fast, safe and direct route to Gleneagles Railway Station then we will also largely solve a route to Glendevon.

Shifting Normal Questions

Figure 18: Can we Shift to a better way of local travel in our Normal lives



Clearly most participants at the Launch Event felt very committed to cycling more. The overwhelming majority felt it would fit into their day, and it was realistic for them. We must acknowledge that this self-selecting group of event attendees may not represent the wider public.

What would hinder you from making the change?

Please write each factor or barrier for you on a Post-It note in this box (Don't worry it's anonymous)"

No dedicated cycle lane along A9

A bridge (foot bridge over the A9 onto the Sherriffmuir Rd would be great for the village walkers and cyclists. Across via the old Kirkparon Lane would a good crossing point. Who will motivate this? G. Stoneley"

State of existing paths

"The use of local buses is a good way to leave the car behind and the pollution.

Crossing A9 - believe there is an old underpass near H/Spring? (local farmer D. McLaren knowledge)

"traffic

hills!"	*crossing A9 from Sherriffmuir would be a problem*
Journeys being too long (or too short) to start here	*Becoming less fit with age!*
A9 path in it's current state	*Path up A9 is rough + exposed*
Traffic	*Steep hills*
Crossing A9!!	*Dedicated for cycled path for cycles only*
Traffic	*Traffic*
A9 crossing	*Poor road surfaces*
A9!	*"traffic*
speed of vehicles	*road surfaces"*
Bike accident several years ago	*lack of services from Gleneagles station*
Crossing the A9!!	*lack of segregated lanes*
narrow back roads	*no improvement to routes*
yep weather	*traffic*
A9 crossing	*steep hills.*
crossing A9 is a major issue	*A9 need own path*
surface Bardrill road so badly deteriorated - otherwise would be a great cycle route	*A9 traffic*
weather	*the A9 is a barrier*
weather	*too hilly but electric bike would help*

Traffic and the A9 are key hindrance themes that are indicated by the comments.

10.5 Appendix: Any comments on your travel; Individuals Consultation

Verbatim comments (personal data redacted) in order of date of submission.

Any comments on your travel:

I try to use the bus but often have to take my car

My kids are too young to cycle to Auchterarder from Blackford yet but would use this route in the future. For now would love safe routes to go on bike rides with them.

My kids are too young to cycle to Auchterarder from Blackford yet but would use this route in the future. For now would love safe routes to go on bike rides with them.

I travel the Gleneagles to work, and walk my dog approx. 3 miles a day. So better paths would be fantastic!

I would love to be able to cycle to and from Auchterarder more safely for shopping, social, gym activities.

I run the local bike shop so I often organise cycle routes that would incorporate blackford and beyond if there was a step change in the infrastructure.

It would be good to keep off the A9 esp. at peak times. I am a driver, but would enjoy a walk, a least one way, to Auchterarder, and get the bus back. Or for a safe walk around the area for exercise.

I think that we need another path between Gleanagels golf courses. When you turn left from A9 just after petrostations, when you travel from Blackford to Auchterarder. This road is realy dengerous for the bikers.

With kids going to high school i think this is a fabulous idea for good weather days

Have once tried walking and cycling at side of A9 ..never again! Way too dangerous!

The A9 bit, v poor surface indeed, Would use if better paved despite no barrier. The Bardrill Road from across the A9 to the Glendevon road, great wee route but suffers from poor surface, mud and sand.

Yes it would be nice to have the choice of walking , cycling or using the car on a daily basis.

The lack of a flyover or safe way to get from the southbound A9 to the village is the biggest problem in transport!

Easily do 50 miles over the weekend on a cycling run, but hate going along the a9 Road and path, no shelter from passing lorries at speed.

If there were suitable cycle routes to Gleneagles Station, I would utilise my bike to get to and from the station. The path along the A9 is not ideal.

I would go out more often if I didn't have to drive on the dual-carriageway! I'm quite happy to cycle (lived in the netherlands for many years) but want a safe route.

No

For pleasure

It is a very short journey to the Railway Station and I feel that everyone would benefit from a safer or improved cycle/walking path to Glenegles Station

"I don't drive so my only feesible mode of transport is by bus. So I don't get to anywhere as often as I would like, hence why the mileage is low.

I also have a pram which isn't always allowed on bus if the space is occupied. An off the road path would give us greater access to the local amenities and enjoy the beautiful countryside we live in whilst boosting our exercise levels."

At present, this is all by car.

Farmers leaving muck and debris on the roads. Lorries coming out of Highland Spring do not stop and I've had to take avoiding action....this happens a lot! Heading towards and from Gleneagles via A9 Loninghead path/road there is no clear signage on traffic direction, flow etc.

Varies greatly

Most of these miles are either walking or cycling.

We'd use them as a family if available. Not really for travel as we don't go to bkackford for work but for leisure and exercise as we all run and cycle so improved paths are always welcome. I also run a holiday let and I'm sure visitors to the area would make good use of an off road facility connecting Auchterarder/Gleneagles to blackford.

If there were suitable cycle routes to Gleneagles Station, I would utilise my bike to get to and from the station. The path along the A9 is not ideal.

busy road

I have just bought a bike, but an nervous about cycling on roads with heavy traffic. Cycle paths would be great

Really support idea of safe cycle tracks.

If I could I would cycle to and from work during the spring/summer periods from Dunning on the cycle routes only

Lack of safe cycle paths is the most important factor making me use a motor vehicle instead of a bicycle.

10.6 Appendix: Any comments on the nature of the a cycle path; Individuals Consultation

Verbatim comments (personal data redacted) in order of date of submission.

Any comments on the nature of the a cycle path:

I don't really cycle because all routes are either not very safe or too hilly

As cycling would involve primary aged children, safety is a priority. Beside a busy road is totally unsuitable.

To take our daughter on a SAFE route away from heavy traffic

As a road cyclist I often find it inconvenient to use cycle paths due to poor design. The surface is often poor, there are frequently extra give ways at side roads. On the continent cycle paths have right of way across side roads. Sharing with pedestrians and dogs is often dangerous. Staying on the road is often safer if cycling at speed.

I am confident to use a road but don't always feel safe. away from the road offers a more relaxed option and better to encourage more users all year round.

I am not currently a cyclist, but would consider being one if the paths were improved.

A firm solid surface would allow road bikes. Anything loose or rough would mean I'd use mountain bike, which is slower and heavier. At A9, if this path remains part of any route, we need to look at total barrier separation from the HGV traffic on A9, or seek permission from the adjacent farmer for a track in his field!

Separation from road vehicles is essential, otherwise I ignore them and just ride on the main road lane.

My main use would be going on family bike-rides, either for exercise, or to go somewhere such as Auchterarder for leisure/shopping/café facilities, so the more separated from roads the better. it would be nice to let the children go on bike rides without needing an adult to join them

Child safety is very important so off road is best

Better if away from traffic.Safer.

Great idea to have a cycle paths

If commuting to Gleneagles Station, a rough track or a surface that get me dirty would not be ideal.

Separate routes are much safer for families wishing to cycle with children

The surface should be a good as possible.

"I think the existing network is reasonable.The most obvious improvements that could be made would seem to me to be along the A9 in both a westerly direction and more importantly in an easterly direction towards Loaninghead and then onwards to Auchterarder.

Blackford has a very good local bus service to Perth and a reasonably good one to Stirling.Both services are operated primarily by Docherty's.Would it not be possible to have cycle racks attached to these buses,allowing cyclists to put their bikes on these racks,and then travel to either of these destinations and intervening villages egAberuthven and Braco.I have seen buses adopted for this type of use in many other countries.

I appreciate that this could achieved to a certain extent by rail from Gleneagles station,but the train service is not nearly as regular as the bus,is more expensive and is less flexible."

As in property where it is all about location, location, location - with cycle paths it is about the quality of the surface!

Tarmac designated path

I cycle regularly with my children and would use new paths in the Blackford area to this effect. I would also use them for jogging and this is unsafe (in my opinion on the road or cycle paths beside the road.

Prefer cycle paths away from traffic and roads

Cycle paths away from the road would be safer for all, and would also mean that younger children could travel longer distances and in a safe environment.

Happy with some undulations, puddles, rougher sections within reason, although certainly easier for kids if the surface is level. More important in my opinion to be away from traffic

If commuting to Gleneagles Station, a rough track or a surface that get me dirty would not be ideal.

Best to be tarred

Badly needed separate network for cycling and walking ...coming from central belt where the network is very good here is terrible with a very high amount of cyclists. Network painted on roads just don't work well. Cars park on them and are not cleaned well of debris which causes punctures. The markings on cycle routes on roads make it so cars are allowed to park on them (Alloa as an example) which is a waste of time and a waste of money as nothing changes.

An away from the road cycle path would be my preference as I have a dog that I take cycling with me and this is so much easier if I can let him off the lead.

Would be great to have a safe cycle path to encourage younger cyclists/families

Good surface eg tarmac no mud puddles sharp stones.

The surface type of the path would determine type of cycle use.

If it is shared with motorists and they do not respect it as a safe cycle path, then it is not really a cycle path.

10.7 Appendix: Anything else you want to tell us in this context

Verbatim comments (personal data redacted) in order of date of submission.

Anything else you want to tell us in this context?

Survey is really clear and easy to fill in Thanks

Just wanted to point out that I think the path by the A9 is a footpath. I suspect technically to ride on it is illegal (Section 129(5) of the Roads (Scotland) Act 1984). Also for lightweight road bikes the Auch end requires upgrading to the same degree as the Blackford end

Teenage sons will be able to walk from Gleneagles train station to Balckford safely and the whole family can walk, cycle run to auchterader safely

I would just like to say that this is an excellent idea and would be a big reason to stay in Blackford instead of moving.

I am not a cyclist any more, but I think it's a great idea for cycle paths in the area.

"Apart from the A9, the worst road to ride a bike on within 10 miles of Blackford is the A823 between the flyover and the entrance to Gleneagles golf course. It is essential for success of any bike path network that that section of road is avoided.

I was unable to fill in the 'How You Travel' section fully because it does not have the opportunity to give multiple answers."

I would like to see an improvement in the current walking/cycling paths around Blackford. For example the path beside Danny Burn, the frequently used path up the Red Brae and the walkway up to the cemetery

I think it might increase visitors to the area as auchterarder is well used by cyclists.

Feel this will really enhance the area. Needed for a long time.Well done to all. Would be good to combine with those recycle organisations who offer 2nd hand bikes to encourage use without the expense.

Whatever is done, there needs to be some funding kept aside for upkeep and improvements. Much like the path that goes from Moray Street to the Wastewater Treatment Facility, although it's owned by Blackford Estate, Scottish Water supposedly is in charge of upkeep and this does not happen (easily). Roads slip, high usage means damage and there needs to be a means to keep it usable for an extended period of time without infighting and blaming of whose fault damage is.

Sorry I can't make it but am cycling for charity in Yorkshire(110km) on the 23Rd or I'd have came.

I cycle extensively in the area. Cycle paths will also help get family on bikes

"Our village at times can feel as though it is chocked by the A9, the railway and the 2 golf resorts (Gleneagles & GWest). Suitable paths will enable the residents to get out and enjoy the surrounding areas. A protected path to Gleneagles Station and Auchterarder will open up different choices for the local area.

When using the main path to Gleneagles Station, this route is not ideal. The path has been taken over by parked trucks and trailers. Currently, when passing these trucks (next to the Salt Depot), I have to use the road, running on the outside of the trucks, in the road. The existing path is almost gone, as trucks park on it. It is also littered with collapased sign posts, knocked over by the parking trucks."

But, disabled..!!

The survey doesn't really capture the use/needs from a family perspective ie by asking about children and their needs/uses, how many children might use the paths if they were the right type etc.

With Transport Scotland's plans to introduce electric trains between Dunblane and Perth in the next 3-5 years, I feel a good quality and safe cycle path can significantly reduce our carbon output. It would

also reduce the quantity of cars per household for families that use the station as their daily commute, buses are available but they don't always go to the station and can cost up to £40 a month.

Prior to retirement I travelled to Br. of Allan by bike frequently but always found crossing the A9 difficult. A walkway way through the Burn of Ogilvie A9 culvert and a cyclepath on the south side of the A9 joining the Bardrill Road to the SheriffMuir road would be good.

Safe crossing of the A9 for cycles and pedestrians is a key

A pedestrian bridge is to be built over the railway. It would be good to be able to use this survey as a vehicle to obtain a similar bridge over the A9 on the line on the old Kinpauch bridleway.

Highland Spring can do more with regards to traffic management in and around Blackford. Also the haulage companies are leaving trailers in the lorry park outside of Blackford

Strongly feel that if a route was to be developed along the route of A9 it has to be protected from road on other side of field walls and fencing. Also if going to use existing route like Badrill Road, clearly surface needs to be significantly improved (to avoid spokes snapping due to potholes!)

I think this is a ridiculous use of scarce leisure funds, that should be targeted at better sports facilities for the whole community, especially children. Tarmacing existing paths at great expense is a waste. I love the existing paths, we live in the countryside for goodness sake!

"the vision of cycle/paths linking up between strathearn area, auchterarder area and beyond would significantly improve the leisure and recreation opportunities in the area.

The local high school would also be able to utilise these paths with pupils in both cycle and jog sessions."

"Cars in this area often travel above the speed limit, when overtaking do not take into account the back-draft they create or overtake at the same time a car is passing in the opposite direction, allowing the cyclist 2' of room. It's getting very dangerous on the roads around Blackford and Auchterarder. When walking or cycling I could, quite often, tap the car passing me on its roof because it is so close!

Good luck with this project and thank you!"

As road cyclist through Blackford, most important are keeping the lane clear that runs parallel to A9 to S'Muir junction. Seems to be a dumping ground for road materials or by farmer? Secondly, a link to A823 is most obvious, either upgrading existing crummy path to North of A9 or a new link to the South using existing lane (but that would involve additional crossing of A9).

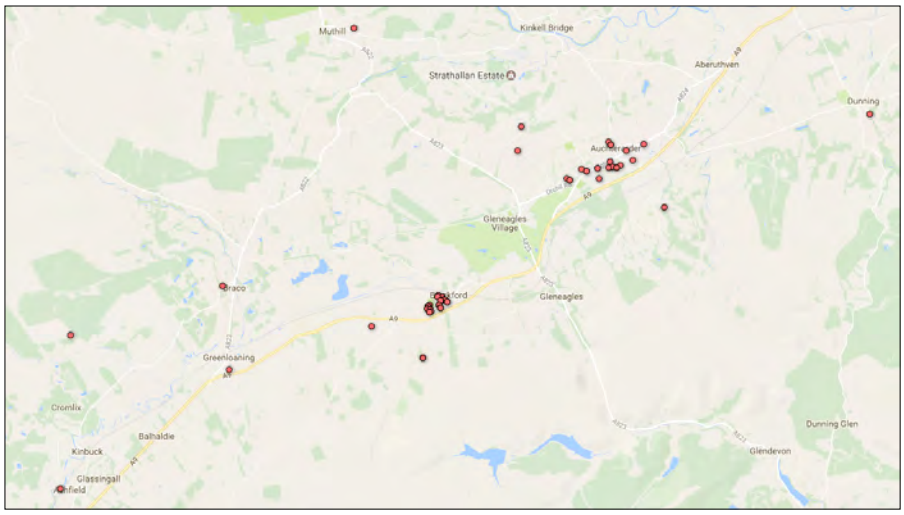
Moving to area to just outside Blackford and i am a kean cyclist

10.8 Appendix: Respondent profile tracking summary; Individual Consultation

Various parameters were included in the consultation in order to track the profile of respondents. This enables the balance of respondents in terms of gender, age and location.

In order to determine the breadth of responses, the respondent postcode has been mapped. One red dot is shown for each postcode, and therefore this map shows the breadth of the response location but not their density.

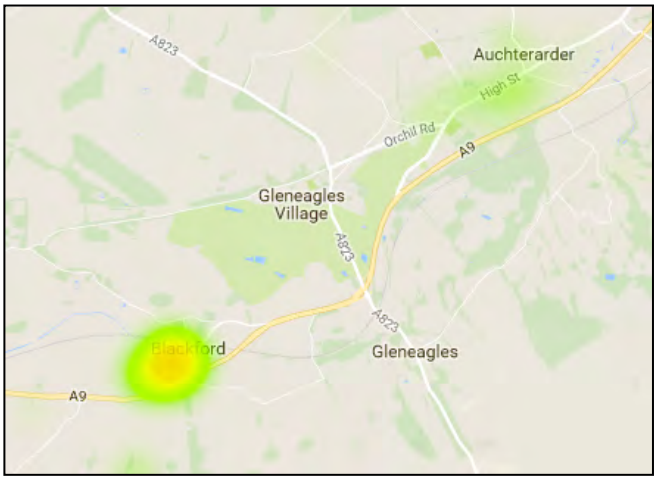
Figure 19: Breadth of Respondent Postcodes



Map backdrop source: Google

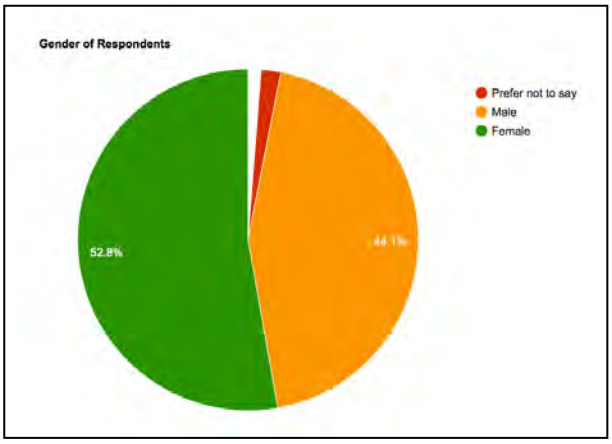
To readily show the density of responses, a 'heatmap' of respondent postcodes has been generated. This is given in the figure below.

Figure 20: Density of Respondent Postcodes



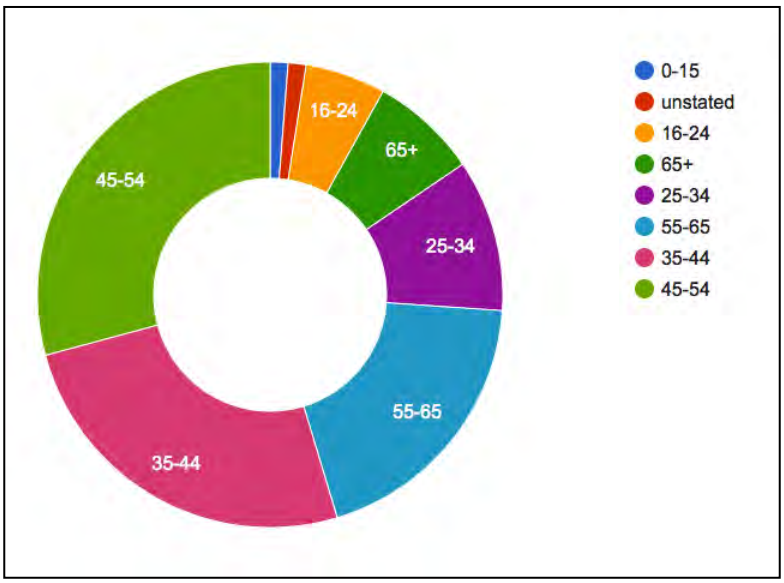
The heatmap displays lower density by light green, and higher density yellow through to orange i.e. more red = more density. While there are a low level of responses in Auchterarder, it is clear that the most significant density of responses are in Blackford. This validates the results of the self-reported 'capacity of your response' question as shown in Figure 5 above.

Figure 21: Gender of respondents; Individual Consultation



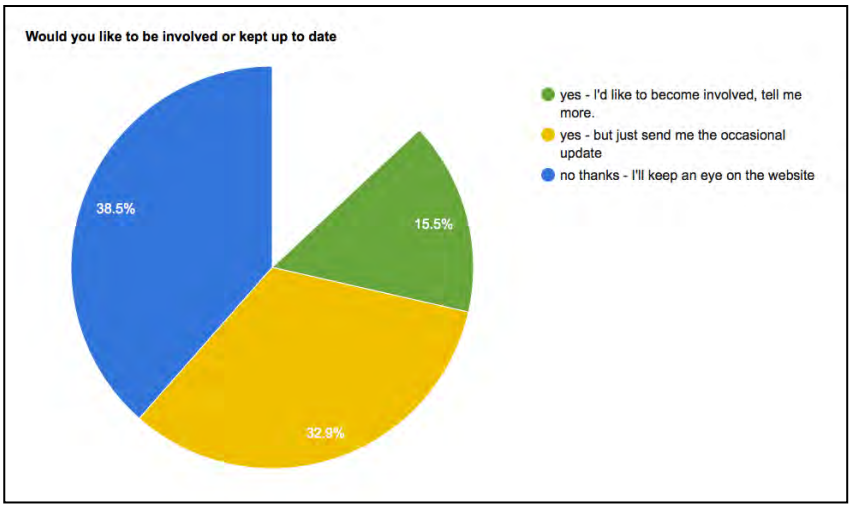
The pie chart shows that respondents were fairly balanced in terms of gender.

Figure 22: Age range of respondents; Individual Consultation



The pie chart shows that all adult age groups were well represented, though most respondents were between 35 and 65 years old.

Figure 23: Further involvement



Note: vacant segment represents those respondents who did not answer this question

The pie chart shows that half of respondents want to be kept engaged with the project, and a minority (green) would like to be actively involved.

Webform analytics record how the form is accessed. This is useful for shaping future consultations. The data below is for respondents only; much larger numbers viewed the forms but did not respond. The response rate for this form was 22%

Table 10: Browser of respondents; Individual consultation

Browsers	Responses	
Facebook	54	32.3%
Chrome	24	14.3%
IE	16	9.58%
Mobile Safari	15	8.98%
Edge	14	8.38%
Firefox	13	7.78%
Chrome Mobile	11	6.58%
Safari	9	5.38%
Amazon Silk	3	1.79%
Chrome Mobile iOS	1	0.59%
Android	1	0.59%
Firefox Mobile	1	0.59%

The table shows that Facebook was the browser used by just under a third of respondents. It underlines the importance, though not dominance of that distribution channel.

10.9 Path Specification Type A

Specification Type A

Concise cycle path specification for low-use rural routes

Project: Blackford Cycle Paths Project

prepared by Crispin Hayes Associates

Version: 25sep17

Basic Considerations

The paths within this type grouping – 'low-use rural core path routes' - have relatively few persons per hour traversing the route. Their origin is often an existing footpath or Right of Way. They are *de-facto* shared use though they may not have this as a formal designation.

Given their relatively low use, it is not appropriate to engineer these routes to a urban cycle path specification for 100 persons per hour. Instead a rural path approach is proposed.

Design Principles

Utility; the path should be of sufficient utility for easy, direct journeys to be made by cycle.

Aesthetic; the path should fit into the landscape. It should also provide both a pleasing appearance and a pleasing outlook for its users.

Materials; The main construction design principle is to ensure that the environmental overheads of construction do not outweigh the environmental benefits of cycle use. To that end, the design is intended not to be over-engineered. Materials should be sourced locally. Recycled materials such as recycled aggregates are to be desired. Quality control and site supervision are essential to ensure that a high quality outcome is achieved.

Design Standards

The principle design standards that will be used focus on a hybrid of footpath and cycle path standards:

Lowland Path Construction[1]

On path drainage features are as specified in *Trail Solutions*[2]

There may be some scope for incorporating material from *Sustrans Design Manual*[3] and *Cycling by Design*[4] especially at intersections with roads.

In term of disabled access the principles contained in *Countryside for All*[5] will be taken into account.

---

[1] Paths for All Partnership *(2001) Lowland Path Construction. A Guide to Good Practice.*

2 IMBA (2004) *Trail Solutions.* International Mountain Bicycling Association, Boulder, Colorado, USA.

[3] Sustrans. (2014) *Sustrans Design Manual. Handbook for cycle-friendly design*. Sustrans, Bristol.

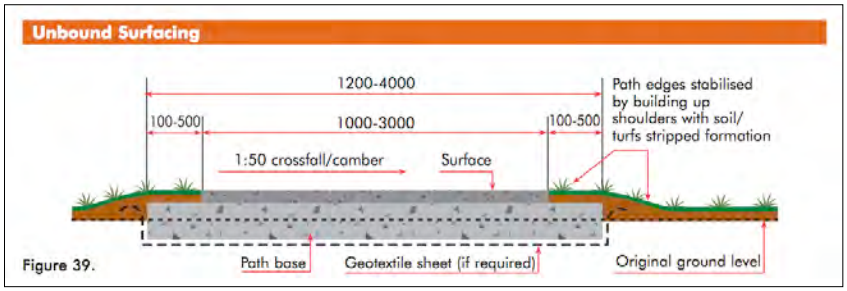
[4] Transport Scotland (2011) *Cycling by Design 2010 (Revision 1, June 2011).*

Signage is largely addressed in the main standards above, but in terms of accessibility, the content of the *JMU Sign Design Guide*[6] will be taken into account.

Proposed design

A generalised cross section diagram of the proposed path design is given below.

Figure 1: Generalised Cross Section of Proposed Construction



Source: Paths for All Partnership *(2001)* Section 3.6

Key Features

- 1.2m wide path (widened at corners and for short distances if required up to 2m)
- Path surfacing compacted quarry dust (except where gradients and other constraints require macadam).
- Min 0.5m wide verge or standoff from fixed objects, both sides.
- Fenced & gates as required.
- Rest areas provided at appropriate locations
- Passing places every 150m
- Maximum gradient 1 in 20 (max 5%, 3% desirable)
- Maximum ramp gradient 1 in 14 (7%)
- Maximum crossfall 1 in 40 (max 2.5%, 2% desired)

Where necessary due to gradient and other factors such as intersections with roads, short sections of more substantial structure will be required and these may be surfaced with macadam.

This path design requires a path corridor of minimum 2.2m and 3m at passing places. The corridor comprises the path itself together with verge or standoff from objects on each side.

[5] Fieldfare Trust (2003) *BT Countryside for All - A Good Practice Guide to Disabled People's Access in the Countryside*.

[6] Peter Fraser & June Barker (2004), *Sign Design Guide. A guide to inclusive signage*, (London: JMU Access Partnership and Sign Design Society).

For unsealed paths, particular attention is required to on-path drainage, and water must be prevented from running down the path. The path is built with a crossfall, but in some circumstances it may not be sufficient. Therefore on-path drainage features such as the 'rolling grade dip' are utilised which are more effective and require less maintenance than traditional water bars.

10.10 Path Specification Type B

Specification Type B

Concise cycle path specification for rural routes

Project: Blackford Cycle Paths Project

prepared by Crispin Hayes Associates

Version: 25sep17

Basic Considerations

The paths within this type grouping – 'well-used rural routes' - are moderately well used, typically a few tens of persons per hour. They are shared use and should be given this as a formal designation.

Though, their use is well below that of the urban situation, they should be engineered according to established cycle path standards, but at the minimum widths and capacity specified.

Design Principles

Utility; the path should be of sufficient utility for easy, direct journeys to be made by cycle.

Aesthetic; the path should fit into the landscape. It should also provide both a pleasing appearance and a pleasing outlook for its users.

Materials; The main construction design principle is to ensure that the environmental overheads of construction do not outweigh the environmental benefits of cycle use. To that end, the design is intended not to be over-engineered. Materials should be sourced locally. Recycled materials such as recycled aggregates are to be desired. Quality control and site supervision are essential to ensure that a high quality outcome is achieved.

Design Standards

The design standards that will be used are contained in two key documents:

Sustrans Design Manual[1] and *Cycling by Design*[2]

There may also be some scope for utilising *Lowland Path Construction*[3] and its associated documents.

On path drainage features are as specified in *Trail Solutions*[4]

[1] Sustrans. (2014) *Sustrans Design Manual. Handbook for cycle-friendly design*. Sustrans, Bristol.

[2] Transport Scotland (2011) *Cycling by Design 2010 (Revision 1, June 2011).*

[3] Paths for All Partnership *(2001) Lowland Path Construction. A Guide to Good Practice.*

 p1 of 1

In term of disabled access the principles contained in *Countryside for All*[5] will be taken into account.

Signage is largely addressed in the main standards above, but in terms of accessibility, the content of the *JMU Sign Design Guide*[6] will be taken into account.

Proposed design

Key critera

- Less than 100 users/hr indicates that a Shared Use is appropriate, and cyclists give way. (*Cycling by Design (2011)*, Table 6.1)
- Shared use, two way. Absolute minimum is 2m, down to 1.5m for short distances and less than 150users/hr. Desired min width is 3m. (*Cycling by Design (2011)*, Table 6.2)
- Additional buffer widths are given in (*Cycling by Design (2011)*, Table 6.3) eg. wall >1.2m high is 0.5m

Key Features

From the above criteria and the cited standards, the following key features are proposed:

- 2.0m wide path (widened at corners and for short distances if required up to 3m, and may be confined to 1.5m for short distances)
- Path surfacing to be sealed macadam (asphalt concrete) or unsealed compacted quarry dust or unsealed compacted fine gravel.
- Min 0.5m wide verge or standoff from fixed objects, both sides.
- Fenced & self-closing gates as required.
- Rest areas provided at appropriate locations
- Maximum gradient 1 in 20 (max 5%, 3% desirable)
- Maximum ramp gradient 1 in 14 (7%)
- Maximum crossfall 1 in 40 (max 2.5%, 2% desired)

This path design requires a path corridor of 3m width. This may widen to 4m in short sections where a wider path is desirable. The absolute minimum path corridor is 2.5m for short sections. The corridor comprises the path itself together with verge or standoff from objects on each side.

---

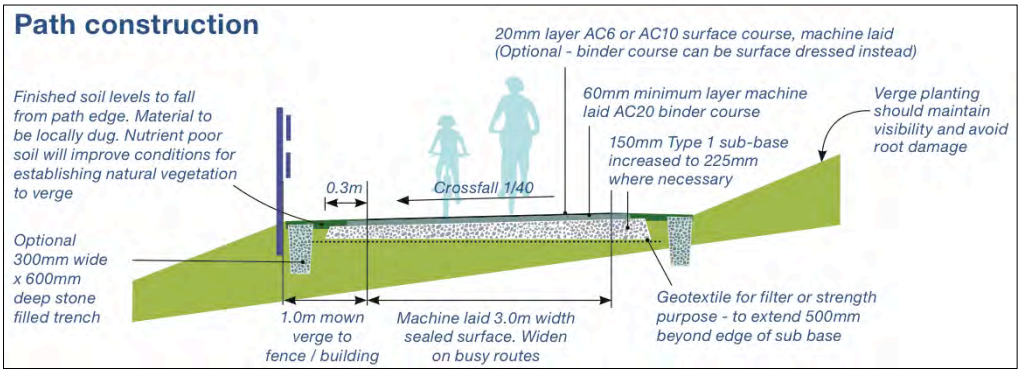
4 IMBA (2004) *Trail Solutions.* International Mountain Bicycling Association, Boulder, Colorado, USA.

[5] Fieldfare Trust (2003) *BT Countryside for All - A Good Practice Guide to Disabled People's Access in the Countryside*.

[6] Peter Fraser & June Barker (2004), *Sign Design Guide. A guide to inclusive signage*, (London: JMU Access Partnership and Sign Design Society).

A generalised cross section diagram of the proposed path design is given below. This is the basis for the path design, and is modified for the rural setting. For the reasons noted above, creating a path of 3m width is not appropriate in the setting, and therefore we are proposing a 2m wide path.

Figure 1: Generalised Cross Section of Proposed Construction



Source: Sustrans. (2014) p23

10.11 Path Specification Type C

Specification Type C

Concise cycle path specification for rural routes

Project: Blackford Cycle Paths Project

prepared by Crispin Hayes Associates

Version: 29th October 2017

Basic Considerations

The paths within this type grouping – 'well-used rural routes' - are moderately well used, typically many tens up to 100 of persons per hour. They are shared use and should be given this as a formal designation.

Though, their use is well below that of the urban situation, they should be engineered according to established cycle path standards, but at the minimum widths and capacity specified.

Design Principles

Utility; the path should be of sufficient utility for easy, direct journeys to be made by cycle.

Aesthetic; the path should fit into the landscape. It should also provide both a pleasing appearance and a pleasing outlook for its users.

Materials; The main construction design principle is to ensure that the environmental overheads of construction do not outweigh the environmental benefits of cycle use. To that end, the design is intended not to be over-engineered. Materials should be sourced locally. Recycled materials such as recycled aggregates are to be desired. Quality control and site supervision are essential to ensure that a high quality outcome is achieved.

Design Standards

The design standards that will be used are contained in two key documents:

Sustrans Design Manual[1] and *Cycling by Design*[2]

The Sustrans *Community Links Guide*[3] gives further minimum requirement to be eligible for this funding stream.

[1] Sustrans. (2014) *Sustrans Design Manual. Handbook for cycle-friendly design*. Sustrans, Bristol.

[2] Transport Scotland (2011) *Cycling by Design 2010 (Revision 1, June 2011)*.

[3] Sustrans. (2016) *Community Links Guide 17/18*. Sustrans Scotland, Edinburgh.

There may also be some scope for utilising *Lowland Path Construction*[4] and its associated documents.

In term of disabled access the principles contained in *Countryside for All*[5] will be taken into account.

Signage is largely addressed in the main standards above, but in terms of accessibility, the content of the *JMU Sign Design Guide*[6] will be taken into account.

Proposed design

Key criteria

- Less than 100 users/hr indicates that a Shared Use is appropriate, and cyclists give way. (*Cycling by Design (2011)*, Table 6.1)
- Shared use, two way. Absolute minimum is 2m, down to 1.5m for short distances and less than 150users/hr. Desired min width is 3m. (*Cycling by Design (2011)*, Table 6.2)
- Minimum width 2.5m for Community Links eligibility (Sustrans (2016), Section 1.3)
- Sealed surface required for Community Links eligibility (Sustrans (2016), Section 1.3)
- Utility path requirement rather than leisure or tourism for Community Links eligibility (Sustrans (2016), Section 1.3)
- Additional buffer widths are given in (*Cycling by Design (2011)*, Table 6.3) eg. wall >1.2m high is 0.5m

Key Features

From the above criteria and the cited standards, the following key features are proposed:

- 2.5m wide path (widened at corners and for short distances if required up to 3m, and may be confined to 1.5m in exceptional circumstances for short distances)
- Path surfacing to be sealed macadam (asphalt concrete)
- Min 0.5m wide verge or standoff from fixed objects, both sides.
- Fenced & self-closing gates as required.
- Rest areas provided at appropriate locations
- Maximum gradient 1 in 20 (max 5%, 3% desirable)
- Maximum ramp gradient 1 in 14 (7%)
- Maximum crossfall 1 in 40 (max 2.5%, 2% desired)

---

[4] Paths for All Partnership *(2001) Lowland Path Construction. A Guide to Good Practice.*

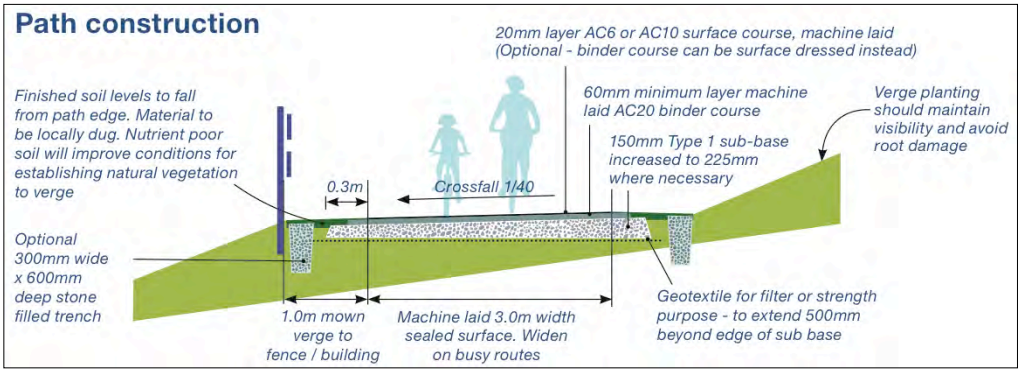
[5] Fieldfare Trust (2003) *BT Countryside for All - A Good Practice Guide to Disabled People's Access in the Countryside.*

[6] Peter Fraser & June Barker (2004), *Sign Design Guide. A guide to inclusive signage*, (London: JMU Access Partnership and Sign Design Society).

This path design requires a path corridor of 3.5m width. This may widen to 4m in short sections where a wider path is desirable. The absolute minimum path corridor is 2.5m for short sections. The corridor comprises the path itself together with verge or standoff from objects on each side.

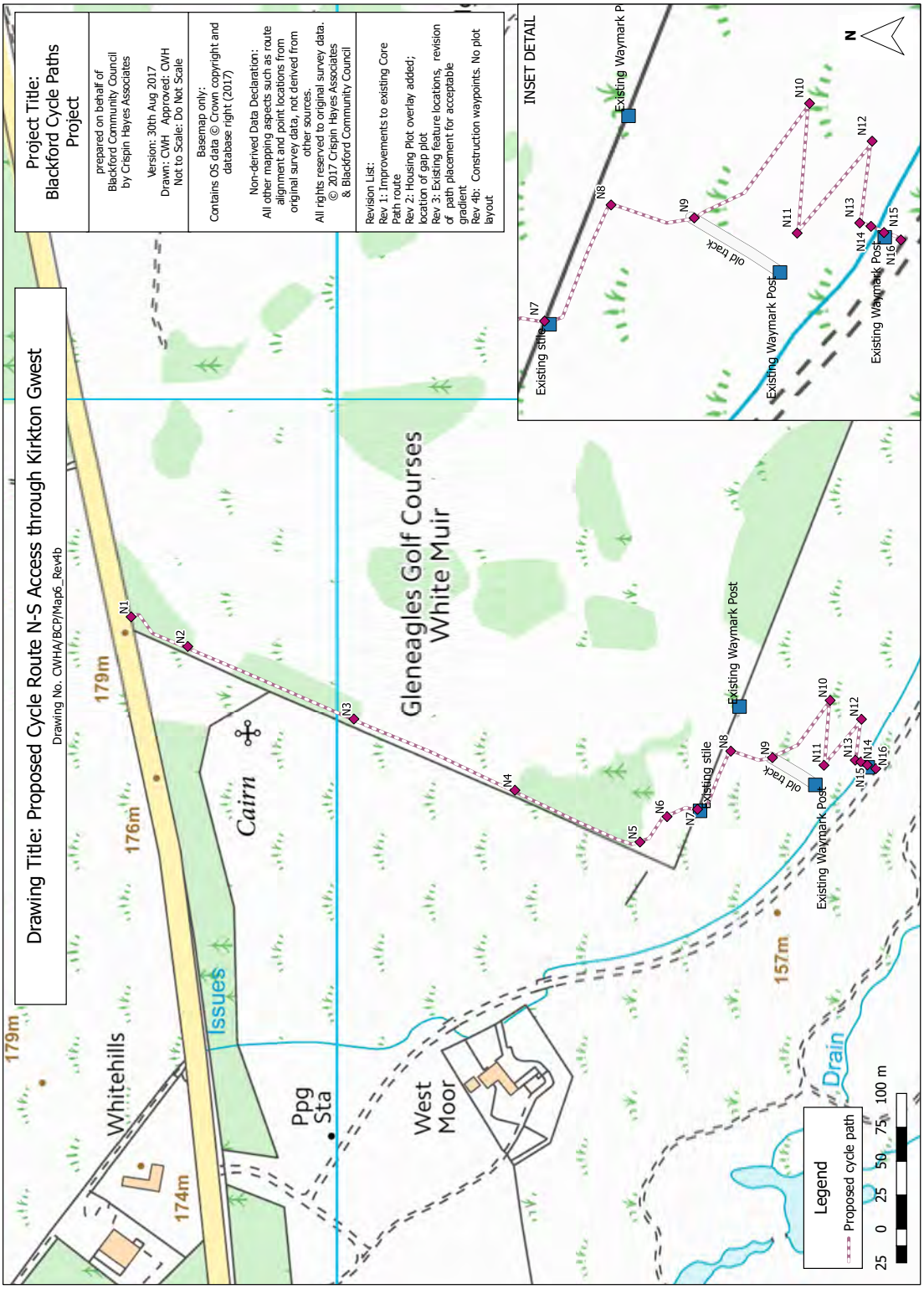
A generalised cross section diagram of the proposed path design is given below.

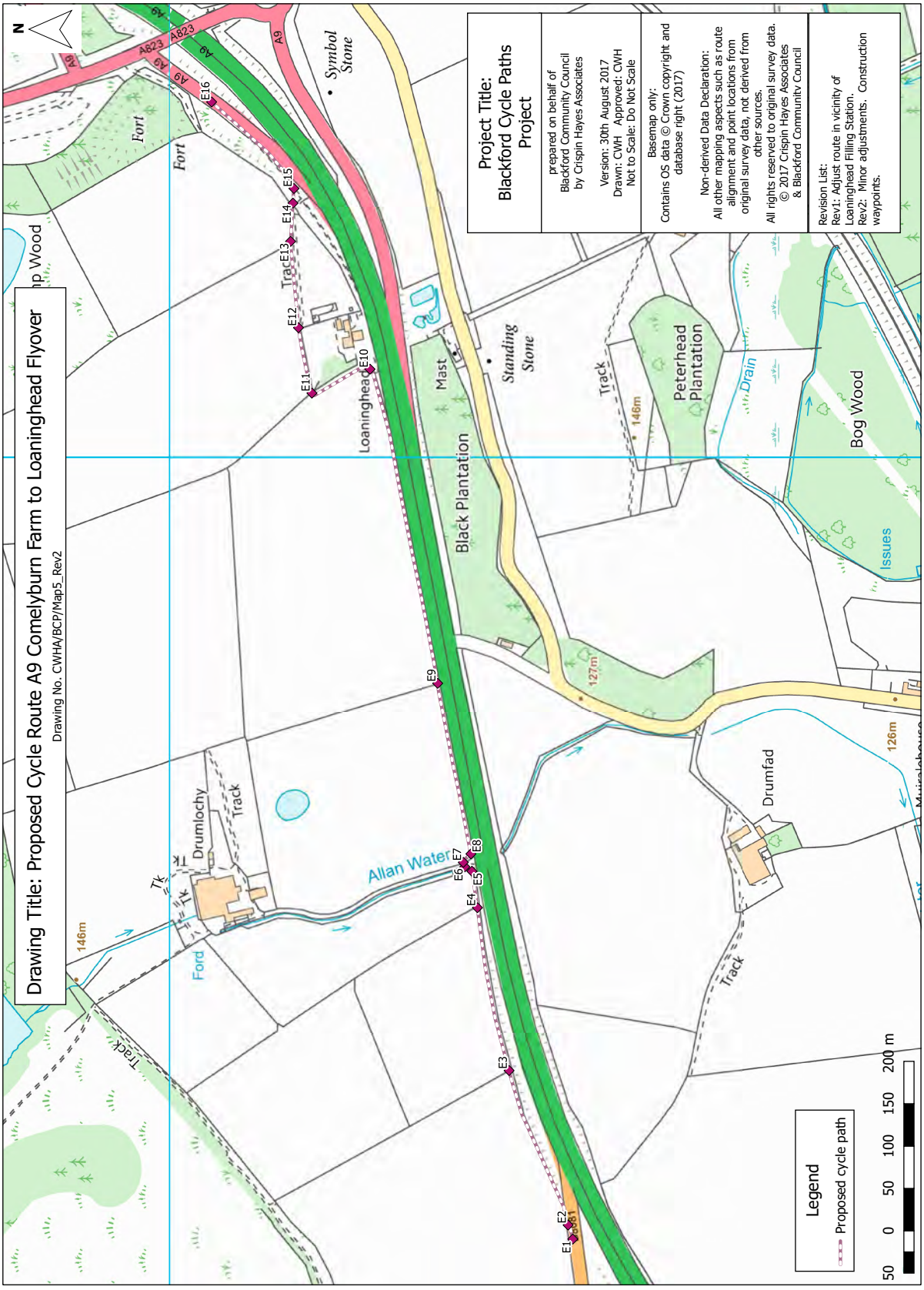
Figure 1: Generalised Cross Section of Proposed Construction

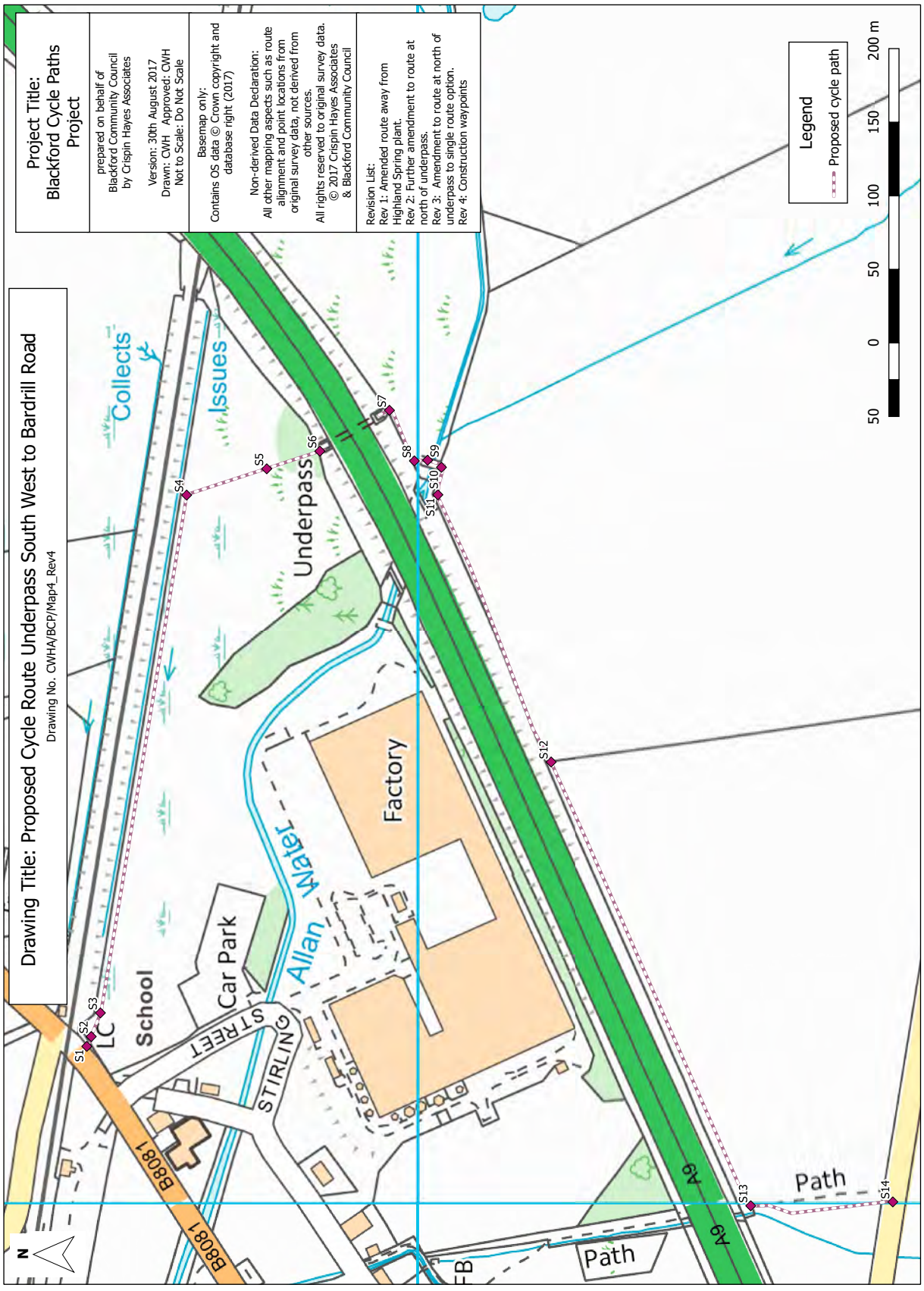


Source: Sustrans. (2014) p23

10.12 Construction Maps




Drawing Title: Proposed Cycle Route A9 Comelyburn Farm to Loaninghead Flyover
Drawing No. CWHA/BCP/Map5_Rev2
Project Title:
Blackford Cycle Paths Project
prepared on behalf of
Blackford Community Council
by Crispin Hayes Associates
Version: 30th August 2017
Drawn: CWH Approved: CWH
Not to Scale: Do Not Scale
Basemap only:
Contains OS data © Crown copyright and database right (2017)
Non-derived Data Declaration:
All other mapping aspects such as route alignment and point locations from original survey data, not derived from other sources.
All rights reserved to original survey data.
© 2017 Crispin Hayes Associates
& Blackford Community Council
Revision List:
Rev1: Adjust route in vicinity of Loaninghead Filling Station.
Rev2: Minor adjustments. Construction waypoints.
N
Legend
Proposed cycle path
50 0 50 100 150 200 m
A9
A823
Fort
Symbol Stone
Standing Stone
Mast
Loaninghead
Track
Peterhead Plantation
Drain
Bog Wood
Black Plantation
Issues
Drumlochy
Track
Allan Water
Ford
Drumfad
Track
146m
127m
126m
E1
E2
E3
E4
E5
E6
E7
E8
E9
E10
E11
E12
E13
E14
E15
E16


Project Title:
Blackford Cycle Paths Project
prepared on behalf of Blackford Community Council by Crispin Hayes Associates
Version: 30th August 2017
Drawn: CWH Approved: CWH
Not to Scale: Do Not Scale
Basemap only:
Contains OS data © Crown copyright and database right (2017)
Non-derived Data Declaration:
All other mapping aspects such as route alignment and point locations from original survey data, not derived from other sources.
All rights reserved to original survey data.
© 2017 Crispin Hayes Associates & Blackford Community Council
Revision List:
Rev 1: Amended route away from Highland Spring plant.
Rev 2: Further amendment to route at north of underpass.
Rev 3: Amendment to route at north of underpass to single route option.
Rev 4: Construction waypoints
Drawing Title: Proposed Cycle Route Underpass South West to Bardrill Road
Drawing No. CWHA/BCP/Map4_Rev4
Legend
Proposed cycle path
50 0 50 100 150 200 m
N
Collects
Issues
Underpass
Factory
School
Car Park
STIRLING STREET
Allan Water
B8081
A9
A9
Path
Path
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14

10.13 Scheme A Schedule of Works

Table 11: Scheme A; Route North

Title:	Schedule of Works & Bill of Quantities for Scheme A						
Subtitle:	**Route North; Contruction Type B**						
Project:	Blackford Cycle Paths Feasibility Project						
Client:	Blackford Community Council						
prepared by Crispin Hayes Associates							
v. 29oct17							
Section Point N1 located at OS grid ref				NN 89840 11151			
Total length of section				760	m		
Schedule							
					Outline Budget		**Specification/**
Item	**Location**	**Description**	**Q'ty**	**Unit**	**unit price**	**total price**	**Drawing No.**
PA1	n/a	Provide, install, service and remove site offices, workshops and other necessary support facilities for contractors & site workers use.	1	sum	£ 2,500.00	£ 2,500.00	
PA2	n1-n16	Identify utilities & mark out site	1	sum	£ 500.00	£ 500.00	
PA3	n1	Supply and install drop kerb, minimum 1.2m wide, including traffic control.	1	sum	£ 250.00	£ 250.00	To Perth & Kinross Council approved standard specification.
PA4	n1	Remove existing gate and re-site posts to create new gate aperture.	1	sum	£ 100.00	£ 100.00	
PA5	n1	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. One way opening.	1	sum	£ 479.75	£ 479.75	SNH CA Design Guide IS 2.3 Opens away from road.
PA6	n1, n16	Signage; Supply & install pedestrian/cycle shared use sign including post. Also supply and install funder acknowledgement signage on same post.	2	sum	£ 250.00	£ 500.00	Sustrans CS/039 Funder acknowledgement design provided by client.
PA7	n1-n7	Brush clearance on path route. Min 2m both sides of centreline. Cut and reduce arisings, disperse on site.	459	lin m	£ 1.34	£ 615.10	
PA8	n1-n3, n4-n7	Cut back intermittent overhanging branches to create clear corridor to minimum 3m height, to min width 2m either side of centreline. Chip and spread arisings.	329	lin m	£ 0.67	£ 220.45	
PA9	n1-n16	Trim path route 50mm depth to form 2.1m wide path tray. Spread spoil in adjoining areas.	760	lin m	£ 4.30	£ 3,268.00	No pruning of roots greater than 25mm dia. Path must rise over roots greater than 30mm dia. with additional formation layer of geocell protection , next item.
PA10	n1-n2, n4-n5	Large tree roots prominent near surface. Lay base of 100mm depth of 4-20mm clean angular stone, in geoweb.	147	lin m	£ 8.00	£ 1,176.00	Greenfix Geoweb or similar approved product
PA11	n2-n7	Path Drainage; Rolling Grade Dip. Excavation of dip, arisings spread. Additional subbase to create rise. Appropriately spaced. Exact location to be determined by topography, agreed on site by the Engineer.	5	sum	£ 120.61	£ 603.04	IMBA (2004) Trail Solutions
PA12	n1-n7	Lay geotextile	459	lin m	£ 2.95	£ 1,353.23	Material as per Specification
PA13	n1-n7	Lay & compact recycled Type 1 subbase, 2.2m wide. Min depth 125mm crushed dem. (recycled)	459	lin m	£ 14.74	£ 6,766.14	Material as per Specification
PA14	n1-n7	Soft spots in subgrade. Excavate and lay additional 100mm depth subbase.	50	m2	£ 6.00	£ 300.00	

PA15	n1-n7	Lay & compact wearing course. 15mm whindust.	459	lin m	£ 6.70	£ 3,075.52	Material as per Specification
PA16	n5, n7	Additional width at corners, for full unbound surface path construction.	15	m2	£ 25.00	£ 375.00	
PA17	n7	Remove existing stile and re-use or recycle materials	1	sum	£ 50.00	£ 50.00	
PA18	n7	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	1	sum	£ 479.75	£ 479.75	SNH CA Design Guide IS 2.3
PA19	n8-n9	Supply and install cross path drainage. Twinwall PP pipe dia 200, 3m length. 2m long lead ditch each end.	1	sum	£ 150.00	£ 150.00	
PA20	n7-n9	Lay geotextile	82	lin m	£ 2.95	£ 241.75	Material as per Specification
PA21	n7-n9	Lay & compact recycled Type 1 subbase, 2.2m wide. Min depth 125mm crushed dem. (recycled)	82	lin m	£ 14.74	£ 1,208.77	Material as per Specification
PA22	n7-n9	Soft spots in subgrade. Excavate and lay additional 100mm depth subbase.	164	m2	£ 6.00	£ 984.00	Additional material over wet area
PA23	n7-n9	Lay & compact wearing course. 15mm whindust.	165	lin m	£ 6.70	£ 1,105.58	Material as per Specification
PA24	n9	Supply and install signage: Switchback corners, cyclists advised to dismount	1	sum	£ 250.00	£ 250.00	Material as per Specification. Orientated for downhill traffic
PA25	n9-n13	Excavate and form 3/4 bench 2.3m wide, and compact as subgrade	202	lin m	£ 8.00	£ 1,616.00	
PA26	n9-n14, n15-n16	Lay & compact Type 1 subbase. 2.2m wide. Min 150mm.	214	lin m	£ 16.08	£ 3,441.37	Material as per Specification
PA27	n9-n14, n15-n16	Lay 60mm minimum layer machine laid AC20 binder course. 2.1m wide	214	lin m	£ 15.50	£ 3,317.00	Material as per Specification
PA28	n9-n14, n15-n16	Lay 20mm layer AC6 or AC10 surface course, machine laid. 2.0m wide	214	lin m	£ 13.40	£ 2,867.80	Material as per Specification
PA29	n8, n13	Additional width at corners, for full bound surface path construction.	8	m2	£ 30.00	£ 240.00	Material as per Specification
PA30	n10, n11, n12	Form switchback corner including bench, drainage & full construction buildup to wearing course. Min outside radius 2.5m	3	sum	£ 1,000.00	£ 3,000.00	IMBA (2004) Trail Solutions Rolling crown design
PA31	n10, n11, n12	Fencing: Guard rail for embankment on switchback. Wooden post and 2 rail.	15	lin m	£ 15.00	£ 225.00	
PA32	n9-n10, n10-n11, n11-n12, n12-n13	Path Drainage; Knick. Excavation of dip & side channel, arisings spread. Appropriately spaced. Exact location to be determined by topography, agreed on site by the Engineer.	4	sum	£ 50.00	£ 200.00	IMBA (2004) Trail Solutions
PA33	n14-n15	Create masonry & concrete abutments including foundations, for wooden cycle bridge. Include Structural Engineer design approval.	1	sum	£ 4,000.00	£ 4,000.00	
PA34	n14-n15	Supply and install 5m span wooden cycle bridge.	1	sum	£ 5,500.00	£ 5,500.00	To approved standard. FSC sourced, pressure treated timber.
PA35	n14, n15	Signage: Supply and install user advice signage on either end of bridge. Fixed to bridge.	2	sum	£ 50.00	£ 100.00	For pedestrian and cyclists only.
PA36	n1-n16	Tidy verges and roll within 0.65m of path edge for mowing.	760	lin m	£ 1.34	£ 1,018.47	
PA37	n16	Signage; Supply and install wooden finger post. 2 fingers. Blackford/ Path to Orchil Road.	1	sum	£ 325.00	£ 325.00	Drawing SP1. FSC sourced, treated timber
PA38	n18	Remove existing gate and re-site posts to create new gate aperture.	1	sum	£ 100.00	£ 100.00	
PA39	n18	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	1	sum	£ 479.75	£ 479.75	SNH CA Design Guide IS 2.3
					Total excluding VAT	**£ 52,982.49**	

Table 12: Scheme A; Route East

Title:	Schedule of Works & Bill of Quantities for Scheme A						
Subtitle:	**Route East; Contruction Type B**						
Project:	Blackford Cycle Paths Feasibility Project						
Client:	Blackford Community Council						
prepared by Crispin Hayes Associates							
v. 18aug17b							
Section Point E1 located at OS grid ref				NN	91077	09524	
Total length of section				1528	m		
Schedule							
					Outline Budget		**Specification/**
Item	**Location**	**Description**	**Q'ty**	**Unit**	**unit price**	**total price**	**Drawing No.**
PB1	n/a	Provide, install, service and remove site offices, workshops and other necessary support facilities for contractors & site workers use.	1	sum	£ 2,500.00	£ 2,500.00	
PB2	e1-e16	Identify utilities & mark out site	1	sum	£ 500.00	£ 500.00	
PB3	e1, e14	Signage; Supply & install pedestrian/cycle shared use sign including post. Also supply and install funder acknowledgement signage on same post.	2	sum	£ 350.00	£ 700.00	Sustrans CS/039 Funder acknowledgement design provided by client.
PB4	e1, e14	Signage; Supply and install wooden finger post.	2	sum	£ 250.00	£ 500.00	Drawing SP1. FSC sourced, treated timber
PB5	e2	Create new gate aperture in existing stone wall, and make good wall ends.	1	sum	£ 425.00	£ 425.00	
PB6	e2, e12, e14	Supply and install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	3	sum	£ 479.75	£ 1,439.26	SNH CA Design Guide IS 2.3
PB7	e1-e16	Trim path route 50mm depth to form 2.1m wide path tray. Spread spoil in adjoining areas.	1528	lin m	£ 4.30	£ 6,570.40	
PB8	e1-e16	Lay & compact Type 1 subbase. 2.2m wide. Min 150mm.	1528	lin m	£ 16.08	£ 24,571.99	Material as per Specification
PB9	e1-e16	Lay 60mm minimum layer machine laid AC20 binder course. 2.1m wide	1528	lin m	£ 15.50	£ 23,684.00	Material as per Specification
PB10	e1-e16	Lay 20mm layer AC6 or AC10 surface course, machine laid. 2.0m wide	1528	lin m	£ 13.40	£ 20,476.66	Material as per Specification
PB11	e2-e6, e7-e14	Fencing: Wire mech stock fence with barbed top strand	1347	lin m	£ 12.73	£ 17,148.53	SNH CA Design Guide IS 5.4
PB12	e5, e6, e7, e8, e10, e11	Additional width at corners, for full bound surface path construction.	18	m2	£ 30.00	£ 540.00	Material as per Specification
PB13	e3, e4, e9, e12, e13	Supply and install new 4.8m wide galvanised stockproof field gate on galvanised 2m posts	5	sum	476.00	£ 2,380.00	
				Total excluding VAT		**£101,435.85**	

Table 13: Scheme A; Route South

Title:	Schedule of Works & Bill of Quantities for Scheme A						
Subtitle:	**Route South; Contruction Type B**						
Project:	Blackford Cycle Paths Feasibility Project						
Client:	Blackford Community Council						
prepared by Crispin Hayes Associates							
v. 18aug17b							
Section Point S1 located at OS grid ref				NN	90106	09225	
Total length of section				1186	m		
Schedule							
					Outline Budget		**Specification/**
Item	**Location**	**Description**	**Q'ty**	**Unit**	**unit price**	**total price**	**Drawing No.**
PC1	n/a	Provide, install, service and remove site offices, workshops and other necessary support facilities for contractors & site workers use.	1	sum	£ 2,500.00	£ 2,500.00	
PC2	s1-s14	Identify utilities & mark out site	1	sum	£ 500.00	£ 500.00	
PC3	s1, s14	Signage; Supply & install pedestrian/cycle shared use sign including post. Also supply and install funder acknowledgement signage on same post.	2	sum	£ 350.00	£ 700.00	Sustrans CS/039 Funder acknowledgement design provided by client.
PC4	s1, s14	Signage; Supply and install wooden finger post.	2	sum	£ 250.00	£ 500.00	Drawing SP1. FSC sourced, treated timber
PC5	s2, s9, s10, s13	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	4	sum	£ 479.75	£ 1,919.02	SNH CA Design Guide IS 2.3
PC6	s1-s3, s5-s6, s7-s14	Trim path route 50mm depth to form 2.1m wide path tray. Spread spoil in adjoining areas.	780	lin m	£ 4.30	£ 3,354.00	
PC7	s3-s5	Create compacted reinforced earth embankment 1m high, 4m wide from onsite material. Borrow pit in vicinity of s5.	413	lin m	£ 9.00	£ 3,717.00	As per specification
PC8	s3-s5	Supply and install cross path drainage. Twinwall PP pipe dia 300, 5m length.	4	sum	£ 250.00	£ 1,000.00	
PC9	s3-s5	Lay geogrid 3m wide approximately 0.5m below formation within earth embankment	413	lin m	£ 15.00	£ 6,195.00	Such as Tensar TriAx or similar approved
PC10	s1-s6, s7-s14	Lay geotextile at formation	1186	lin m	£ 2.95	£ 3,496.58	Material as per Specification
PC11	s1-s6, s7-s14	Lay & compact recycled Type 1 subbase, 2.2m wide. Min depth 125mm crushed dem. (recycled)	1186	lin m	£ 14.74	£ 17,482.89	Material as per Specification
PC12	s1-s6, s7-s14	Lay & compact wearing course. 15mm whindust.	1186	lin m	£ 6.70	£ 7,946.77	Material as per Specification
PC13	s1-s6, s7-s14	Additional width at corners, for full unbound surface path construction.	15	m2	£ 25.00	£ 375.00	Material as per Specification
PC14	s7-s13	Fencing: Wire mech stock fence with barbed top strand	605	lin m	£ 12.73	£ 7,702.20	SNH CA Design Guide IS 5.4
PC15	s7	Fencing: Wire mech stock fence with barbed top strand. Additional infill length	5	lin m	£ 12.73	£ 63.65	SNH CA Design Guide IS 5.4
PC16	s7	Supply and install new 4.8m wide galvanised stockproof field gate on galvanised 2m posts	1	sum	476.00	£ 476.00	
				Total excluding VAT		**£ 57,928.10**	

10.14 Scheme B Schedule of Works

Table 14: Scheme B; Route North

Title:	Schedule of Works & Bill of Quantities for Scheme B						
Subtitle:	**Route North; Contruction Type B**						
Project:	Blackford Cycle Paths Feasibility Project						
Client:	Blackford Community Council						
prepared by Crispin Hayes Associates							
v. 29oct17							
Section Point N1 located at OS grid ref				NN 89840 11151			
Total length of section				760	m		
Schedule							
					Outline Budget		**Specification/**
Item	**Location**	**Description**	**Q'ty**	**Unit**	**unit price**	**total price**	**Drawing No.**
PA1	n/a	Provide, install, service and remove site offices, workshops and other necessary support facilities for contractors & site workers use.	1	sum	£ 2,500.00	£ 2,500.00	
PA2	n1-n16	Identify utilities & mark out site	1	sum	£ 500.00	£ 500.00	
PA3	n1	Supply and install drop kerb, minimum 1.2m wide, including traffic control.	1	sum	£ 250.00	£ 250.00	To Perth & Kinross Council approved standard specification.
PA4	n1	Remove existing gate and re-site posts to create new gate aperture.	1	sum	£ 100.00	£ 100.00	
PA5	n1	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. One way opening.	1	sum	£ 479.75	£ 479.75	SNH CA Design Guide IS 2.3 Opens away from road.
PA6	n1, n16	Signage; Supply & install pedestrian/cycle shared use sign including post. Also supply and install funder acknowledgement signage on same post.	2	sum	£ 250.00	£ 500.00	Sustrans CS/039 Funder acknowledgement design provided by client.
PA7	n1-n7	Brush clearance on path route. Min 2m both sides of centreline. Cut and reduce arisings, disperse on site.	459	lin m	£ 1.34	£ 615.10	
PA8	n1-n3, n4-n7	Cut back intermittent overhanging branches to create clear corridor to minimum 3m height, to min width 2m either side of centreline. Chip and spread arisings.	329	lin m	£ 0.67	£ 220.45	
PA9	n1-n16	Trim path route 50mm depth to form 2.1m wide path tray. Spread spoil in adjoining areas.	760	lin m	£ 4.30	£ 3,268.00	No pruning of roots greater than 25mm dia. Path must rise over roots greater than 30mm dia. with additional formation layer of geocell protection , next item.
PA10	n1-n2, n4-n5	Large tree roots prominent near surface. Lay base of 100mm depth of 4-20mm clean angular stone, in geoweb.	147	lin m	£ 8.00	£ 1,176.00	Greenfix Geoweb or similar approved product
PA11	n2-n7	Path Drainage; Rolling Grade Dip. Excavation of dip, arisings spread. Additional subbase to create rise. Appropriately spaced. Exact location to be determined by topography, agreed on site by the Engineer.	5	sum	£ 120.61	£ 603.04	IMBA (2004) Trail Solutions
PA12	n1-n7	Lay geotextile	459	lin m	£ 2.95	£ 1,353.23	Material as per Specification
PA13	n1-n7	Lay & compact recycled Type 1 subbase, 2.2m wide. Min depth 125mm crushed dem. (recycled)	459	lin m	£ 14.74	£ 6,766.14	Material as per Specification

PA14	n1-n7	Soft spots in subgrade. Excavate and lay additional 100mm depth subbase.	50	m2	£ 6.00	£ 300.00	
PA15	n1-n7	Lay & compact wearing course. 15mm whindust.	459	lin m	£ 6.70	£ 3,075.52	Material as per Specification
PA16	n5, n7	Additional width at corners, for full unbound surface path construction.	15	m2	£ 25.00	£ 375.00	
PA17	n7	Remove existing stile and re-use or recycle materials	1	sum	£ 50.00	£ 50.00	
PA18	n7	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	1	sum	£ 479.75	£ 479.75	SNH CA Design Guide IS 2.3
PA19	n8-n9	Supply and install cross path drainage. Twinwall PP pipe dia 200, 3m length. 2m long lead ditch each end.	1	sum	£ 150.00	£ 150.00	
PA20	n7-n9	Lay geotextile	82	lin m	£ 2.95	£ 241.75	Material as per Specification
PA21	n7-n9	Lay & compact recycled Type 1 subbase, 2.2m wide. Min depth 125mm crushed dem. (recycled)	82	lin m	£ 14.74	£ 1,208.77	Material as per Specification
PA22	n7-n9	Soft spots in subgrade. Excavate and lay additional 100mm depth subbase.	164	m2	£ 6.00	£ 984.00	Additional material over wet area
PA23	n7-n9	Lay & compact wearing course. 15mm whindust.	165	lin m	£ 6.70	£ 1,105.58	Material as per Specification
PA24	n9	Supply and install signage: Switchback corners, cyclists advised to dismount	1	sum	£ 250.00	£ 250.00	Material as per Specification. Orientated for downhill traffic
PA25	n9-n13	Excavate and form 3/4 bench 2.3m wide, and compact as subgrade	202	lin m	£ 8.00	£ 1,616.00	
PA26	n9-n14, n15-n16	Lay & compact Type 1 subbase. 2.2m wide. Min 150mm.	214	lin m	£ 16.08	£ 3,441.37	Material as per Specification
PA27	n9-n14, n15-n16	Lay 60mm minimum layer machine laid AC20 binder course. 2.1m wide	214	lin m	£ 15.50	£ 3,317.00	Material as per Specification
PA28	n9-n14, n15-n16	Lay 20mm layer AC6 or AC10 surface course, machine laid. 2.0m wide	214	lin m	£ 13.40	£ 2,867.80	Material as per Specification
PA29	n8, n13	Additional width at corners, for full bound surface path construction.	8	m2	£ 30.00	£ 240.00	Material as per Specification
PA30	n10, n11, n12	Form switchback corner including bench, drainage & full construction buildup to wearing course. Min outside radius 2.5m	3	sum	£ 1,000.00	£ 3,000.00	IMBA (2004) Trail Solutions Rolling crown design
PA31	n10, n11, n12	Fencing: Guard rail for embankment on switchback. Wooden post and 2 rail.	15	lin m	£ 15.00	£ 225.00	
PA32	n9-n10, n10-n11, n11-n12, n12-n13	Path Drainage; Knick. Excavation of dip & side channel, arisings spread. Appropriately spaced. Exact location to be determined by topography, agreed on site by the Engineer.	4	sum	£ 50.00	£ 200.00	IMBA (2004) Trail Solutions
PA33	n14-n15	Create masonry & concrete abutments including foundations, for wooden cycle bridge. Include Structural Engineer design approval.	1	sum	£ 4,000.00	£ 4,000.00	
PA34	n14-n15	Supply and install 5m span wooden cycle bridge.	1	sum	£ 5,500.00	£ 5,500.00	To approved standard. FSC sourced, pressure treated timber.
PA35	n14, n15	Signage: Supply and install user advice signage on either end of bridge. Fixed to bridge.	2	sum	£ 50.00	£ 100.00	For pedestrian and cyclists only.
PA36	n1-n16	Tidy verges and roll within 0.65m of path edge for mowing.	760	lin m	£ 1.34	£ 1,018.47	
PA37	n16	Signage; Supply and install wooden finger post. 2 fingers. Blackford/ Path to Orchil Road.	1	sum	£ 325.00	£ 325.00	Drawing SP1. FSC sourced, treated timber
PA38	n18	Remove existing gate and re-site posts to create new gate aperture.	1	sum	£ 100.00	£ 100.00	
PA39	n18	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	1	sum	£ 479.75	£ 479.75	SNH CA Design Guide IS 2.3
				Total excluding VAT		**£ 52,982.49**	

Table 15: Scheme B; Route East

Title:	Schedule of Works & Bill of Quantities for Scheme B						
Subtitle:	**Route East; Contruction Type C**						
Project:	Blackford Cycle Paths Feasibility Project						
Client:	Blackford Community Council						
prepared by Crispin Hayes Associates							
v. 29oct17							
Section Point E1 located at OS grid ref				NN	91077	09524	
Total length of section				1528	m		
Schedule							
					Outline Budget		**Specification/**
Item	**Location**	**Description**	**Q'ty**	**Unit**	**unit price**	**total price**	**Drawing No.**
PB1	n/a	Provide, install, service and remove site offices, workshops and other necessary support facilities for contractors & site workers use.	1	sum	£ 2,500.00	£ 2,500.00	
PB2	e1-e16	Identify utilities & mark out site	1	sum	£ 500.00	£ 500.00	
PB3	e1, e14	Signage; Supply & install pedestrian/cycle shared use sign including post. Also supply and install funder acknowledgement signage on same post.	2	sum	£ 350.00	£ 700.00	Sustrans CS/039 Funder acknowledgement design provided by client.
PB4	e1, e14	Signage; Supply and install wooden finger post.	2	sum	£ 250.00	£ 500.00	Drawing SP1. FSC sourced, treated timber
PB5	e2	Create new gate aperture in existing stone wall, and make good wall ends.	1	sum	£ 525.00	£ 525.00	
PB6	e2, e12, e14	Supply and install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	3	sum	£ 479.75	£ 1,439.26	SNH CA Design Guide IS 2.3
PB7	e1-e16	Trim path route 50mm depth to form 2.7m wide path tray. Remove arisings for re-use	1528	lin m	£ 6.30	£ 9,626.40	
PB8	e1-e16	Lay & compact Type 1 subbase. 2.7m wide. Min 150mm.	1528	lin m	£ 18.50	£ 28,268.00	Material as per Specification
PB9	e1-e16	Lay 60mm minimum layer machine laid AC20 binder course. 2.5m wide	1528	lin m	£ 18.00	£ 27,504.00	Material as per Specification
PB10	e1-e16	Lay 20mm layer AC6 or AC10 surface course, machine laid. 2.5m wide	1528	lin m	£ 18.00	£ 27,504.00	Material as per Specification
PB11	e2-e6, e7-e14	Fencing: Wire mech stock fence with barbed top strand	1347	lin m	£ 12.73	£ 17,148.53	SNH CA Design Guide IS 5.4
PB12	e5, e6, e7, e8, e10, e11	Additional width at corners, for full bound surface path construction.	18	m2	£ 30.00	£ 540.00	Material as per Specification
PB13	e3, e4, e9, e12, e13	Supply and install new 4.8m wide galvanised stockproof field gate on galvanised 2m posts	5	sum	476.00	£ 2,380.00	
				Total excluding VAT		**£119,135.20**	

Table 16: Scheme B; Route South

Title:	Schedule of Works & Bill of Quantities for Scheme B						
Subtitle:	**Route South; Contruction Type C**						
Project:	Blackford Cycle Paths Feasibility Project						
Client:	Blackford Community Council						
prepared by Crispin Hayes Associates							
v. 29oct17							
Section Point S1 located at OS grid ref				NN	90106	09225	
Total length of section				1186	m		
Schedule							
					Outline Budget		**Specification/**
Item	**Location**	**Description**	**Q'ty**	**Unit**	**unit price**	**total price**	**Drawing No.**
PC1	n/a	Provide, install, service and remove site offices, workshops and other necessary support facilities for contractors & site workers use.	1	sum	£ 2,500.00	£ 2,500.00	
PC2	s1-s14	Identify utilities & mark out site	1	sum	£ 500.00	£ 500.00	
PC3	s1, s14	Signage; Supply & install pedestrian/cycle shared use sign including post. Also supply and install funder acknowledgement signage on same post.	2	sum	£ 350.00	£ 700.00	Sustrans CS/039 Funder acknowledgement design provided by client.
PC4	s1, s14	Signage; Supply and install wooden finger post.	2	sum	£ 250.00	£ 500.00	Drawing SP1. FSC sourced, treated timber
PC5	s2, s9, s10, s13	Install new self closing 1.5m gate suitable for all-abilities, cycle, pedestrians. Two way opening.	4	sum	£ 479.75	£ 1,919.02	SNH CA Design Guide IS 2.3
PC6	s1-s3, s5-s6, s7-s14	Trim path route 50mm depth to form 2.7m wide path tray. Remove arisings for re-use	780	lin m	£ 6.30	£ 4,914.00	
PC7	s3-s5	Create compacted reinforced earth embankment 1m high, 4.5m wide from onsite material. Borrow pit in vicinity of s5.	413	lin m	£ 10.50	£ 4,336.50	As per specification
PC8	s3-s5	Supply and install cross path drainage. Twinwall PP pipe dia 300, 6m length.	4	sum	£ 290.00	£ 1,160.00	
PC9	s3-s5	Lay geogrid 4m wide approximately 0.5m below formation within earth embankment	413	lin m	£ 20.00	£ 8,260.00	Such as Tensar TriAx or similar approved
PC10	s1-s6, s7-s14	Lay geotextile at formation	1186	lin m	£ 2.95	£ 3,496.58	Material as per Specification
		Lay & compact recycled Type 1 subbase, 2.2m wide. Min depth 125mm crushed dem. (recycled)	1186	lin m	£ 14.74	£ 17,482.89	Material as per Specification
PC11	s1-s6, s7-s14	Lay & compact Type 1 subbase. 2.7m wide. Min 150mm.	1186	lin m	£ 18.50	£ 21,941.00	Material as per Specification
PC12	s1-s6, s7-s14	Lay 60mm minimum layer machine laid AC20 binder course. 2.5m wide	1186	lin m	£ 18.00	£ 21,348.00	Material as per Specification
PC13	s1-s6, s7-s14	Lay 20mm layer AC6 or AC10 surface course, machine laid. 2.5m wide	1186	lin m	£ 18.00	£ 21,348.00	Material as per Specification
PC14	s1-s6, s7-s14	Additional width at corners, for full bound surface path construction.	18	m2	£ 30.00	£ 540.00	Material as per Specification
PC15	s7-s13	Fencing: Wire mech stock fence with barbed top strand	605	lin m	£ 12.73	£ 7,702.20	SNH CA Design Guide IS 5.4
PC16	s7	Fencing: Wire mech stock fence with barbed top strand. Additional infill length	5	lin m	£ 12.73	£ 63.65	SNH CA Design Guide IS 5.4
PC17	s7	Supply and install new 4.8m wide galvanised stockproof field gate on galvanised 2m posts	1	sum	476.00	£ 476.00	
				Total excluding VAT		**£119,187.84**	