

Job Name: Beckington Cycle Strategy **Job N°:** MNY20-16

Date: 23/09/20 **Client:** Beckington Parish Council

Beckington Cycle Route Strategy – Feasibility Study

Introduction:

This report has been prepared by Moss Naylor Young on behalf of Beckington Parish Council to inform proposals for cycle priority measures to connect the centre of Beckington with Frome, Rode and with destinations across the parish of Beckington. Following the response of central government to the Covid-19 pandemic in which cycling has been encouraged to supplement public transport in view of reduced capacity on the latter, there has been widespread interest in creating cycle priority measures and funding has become available to do so.

Moss Naylor Young (MNY) are a small independent consultancy based in Frome providing planning and transport planning services: our main clients are parish councils, voluntary organisations and private individuals and we focus primarily on works of public benefit rather than promoting private developments. Both the company and Patrick Moss, the founder and managing director, have extensive experience of cycling projects and the promotion of sustainable transport options. Patrick's experience includes county wide cycling strategies in Wales (Ceredigion), planning and provision of new cycle tracks related to development around Oxford, and adaptation of former railway alignments, restricted byways and canal towpaths as shared surfaces.

Beckington is a village located approximately 3.5 miles to the north west of Frome in the Mendip District of Somerset. The village had a population of 983 in the 2011 census. Historically the village was located on the A36 and the A361 which met at a junction by the Woolpack Inn. In the later 80's/early 90's the Frome Bypass was built routing both these main routes out of the village. As a result Frome Road in the village is wide than a standard village road. The parish encompasses a wider area including Whiterow Farm on the far side of the bypass from the village and the hamlet of Rudge, host to the Full Moon Inn, just over two miles from the centre of Beckington and again on the far side of the bypass from the village.

Local highway network

Beckington village has three through roads which radiate from the Woolpack Inn, none of which are classified. Frome Road runs from the B3090 south of the village to the Woolpack, and Bath Road runs from there to A36 Beckington interchange north of the village. Warminster Road leads from the Woolpack to the A361/A36 Warminster Road interchange. These three routes meet at a mini roundabout outside the Woolpack

Two further roads are of interest, Goose Street which leads from Bath Road some 160m north of the Woolpack and leads under the bypass and the via Rudge Lane to Rudge, and the spur of Bath Road leading to the A36 at the very start/end of the Frome bypass towards Woolverton.

Beyond this parish network, the B3090 leads from Frome Road to Frome, the first destination reached within Frome is the College, attended by several students from Beckington. Frome is presently developing a cycle strategy of its own that will connect the college with other parts of the town. It should also be noted that within Frome the roads are all urban in character – lit, 30mph or 20mph limit, generally with footways and generally suitable for (and used by) local cyclists – to reach Frome college

is to give a cyclist from Beckington access to the whole of Frome – as well as via side streets for the less confident.

For motor vehicles the route to Rode involves the A36 and the A361, however for cyclists an alternative exists, following Goose Street and Rudge Lane via the bridge under the A36 Beckington Bypass, and then via Green Park Lane, Park Gate Lane and Straight Lane (all part of NCR254) to Rode

There are presently no off-road cycle routes within the parish but two restricted byways (on which cycling is legally permitted) are of interest. The first runs from Whiterow Farm to Scotland Lane and thus provides a second route to Rudge, the second, Duck Pool Lane, leads from Rudge Lane to Monkley Lane on the parish of Rode. These are unusable even for mountain bikes and do not lead anywhere.

Developing a cycle network

The principle of a cycle network is that it should link destinations and be accessible from all areas. The routes do not need to serve every dwelling but all dwellings within an area should be able to reach a designated cycle route on a road that is safe for cycling, e.g. a typical residential access road. Once on a cycle route the cyclist should be able to follow it either to their chosen destination or, for example if travelling to another dwelling, follow the cycle route and then a residential road to their destination. Cycle routes within the network can variously consist of on-carriageway priority measures, facilitating cycling adjacent to the carriageway, off-road routes, and promotion of low-traffic on-road routes.

Nodes/Destinations

In discussion with the client it was agreed that a cycle network for Beckington should seek to connect the following locations

- Frome College
- Rode High Street
- The Full Moon at Rudge
- The Woolpack Inn
- M&S at Beckington Services
- Beckington Tennis Club
- Beckington First School

The following are also included, but will be connected by virtue of being adjacent to the routes that connect the above destinations

- Springmead School
- St George's Church
- Beckington Pre-School/Baptist Church
- Beckington Family Practice
- Mes Amis
- The Foresters PH

It is important to note that for these destinations, or any interim destinations served, to be accessible by bicycle then it must be practical to leave a bicycle unattended on arrival – identifying that parking space is not part of this study but the need for it should be noted.

To reach these destinations:

- The Woolpack Inn is at the centre of the network and thus will be served by default – all routes radiate from the Woolpack.
- Frome College can be reached via Frome Road and the B3090 – there are no cycle facilities at present on this route and it is not especially cycle friendly once outside the village. Beckington pre-school/Baptist Church lies within the village close to this route.
- Rode High Street can be reached via Goose Street. Rudge Lane, Green Park Lane, Parkgate Lane and Straight Lane. The crossing of the A361 is not cycle friendly and is off-putting for experienced cyclists and a dangerous barrier for the less experienced.
- The Full Moon at Rudge can be reached via Goose Street and Rudge Lane – this route will also serve Beckington Family Practice and the Foresters, and forms the first part of the route to Rode.
- M&S Beckington Services is the only supermarket in the parish and can be reached along Bath Road – this route will also serve Mes Amis.
- Beckington Tennis Club is on Warminster Road near the interchange with the A36/A361. From the Woolpack travel is along Warminster Road and across the Warminster Road interchange.
- Beckington First School can be reached via Church Lane – this route can be extended to serve St Georges Church and Springmead School.

Possible measures

Photographs of typical measures are included in a separate appendix 1.

Cycle lanes are popular but need careful consideration – there are three types, mandatory, advisory and contraflow.

Mandatory cycle lanes are protected by law – a driver is committing an offence if the wheel of a motor vehicle enters the cycle lane. To make these work it is necessary for the highway to be wide enough for vehicle traffic to pass without encroaching in the lane, otherwise the law becomes impossible to comply with and thus impossible to enforce. Mandatory cycle lanes need a Traffic Regulation Order to carry the force of law.

Advisory cycle lanes are marked on the carriageway but do not offer full legal protection for a cyclist – a motorist in the lane is not automatically committing an offence but would undoubtedly have greater liability in the event of a collision with a cyclist. The concept of advisory cycle lanes is that there can be one on each side of the road with enough room in the middle for single file traffic without entering either cycle lane, if vehicles need to pass in opposite directions they both briefly encroach the cycle lane.

Contra-flow cycle lane – these give cyclists the legal right to go the wrong way down one-way streets. They can be full cycle lanes marked on the road or simply a signposted exemption. In practice Beckington has not got any one-way streets so this type of cycle lane will not be required.

Cycle lanes of any type must be on the left hand of the road in the cyclist's direction of travel* and are normally adjacent to the kerb. Where cars are parked on street the cycle lane can be in the carriageway outside the parking bays although both cyclists and owners of parked vehicles need to take care with regards to car doors opening.

**if a cycle lane is fully segregated from the carriageway by a kerb or similar then it can operate in both directions.*

There are also off-road cycle paths and shared paths – off road cycle paths are almost always shared to some extent due to the hierarchy of users of the highway, of which pedestrians being the lowest category may use all highways except where they are specifically prohibited (e.g. Motorways) cyclists thus may not use footpaths and footways but will find the pedestrians can use cycle paths and cycle ways.

Shared paths may be segregated if they are wide enough – a white line separating cyclists from pedestrians, but when adapting existing infrastructure, it is more typical for the surface of the existing footway to be completely shared. This is not ideal but in certain instances where the highway is constrained, and pedestrian flows are light the balance of safety leads to allowing cyclists to use the footway.

Width requirements – the dynamic profile of a cyclist is about a metre wide and thus a cycle lane needs to be at least a metre wide, the desirable width of 2m is seldom achievable. A mandatory cycle lane requires at least 6m of available carriageway for two way traffic, advisory cycle lanes require at least 4m carriageway for single file traffic (with the width of the cycle lane bringing the total width to at least 5.5m-6m), Advisory cycle lanes are not recommended on busier roads and if they are used on such roads then there must be room for two way traffic without encroaching on the cycle lane, otherwise encroachment will be continual.

Road with parked cars

Before any discussion on cycle strategy of routes, the idea that parked cars bring any level of traffic calming benefit needs to be dismissed – there is only one reason for cars to be parked on the carriageway and that is that there is nowhere else for them to go. On wide roads there is little harm in cars being parked on street, although they can still present a safety hazard when pedestrians, cyclists and vehicles must join the carriageway from a side road, but on narrower streets they are a problem. One only has to think how that road space might be used if it were not for cars parked on it – footways could be widened, cycle lanes marked, and overall safety improved. It is safer for a cyclist to have vehicles pass at a safe distance at 30mph than squeeze past at 15mph.

Route characteristics and development of cycle priority

Beckington to Frome

This scheme is intended to link Beckington to the major service centre of Frome and to NCR 24 which passes through Frome and links to Bath via Radstock and Midford. Thus, this route will link Beckington to Bath, albeit via a less than direct route.

It should be noted that Frome Town Council have aspirations for their own cycle infrastructure that would link the town centre (and NCR 24) to Frome College, thus if a cycle route from Beckington can reach the college or the junction of the B3090 with Princess Anne Way then the objective of reaching Frome will have been achieved.

Route - Initially the cycle route from Beckington Centre would follow Frome Road, the former route of the A361 to Oldford where the B3090 would be joined. This route is relatively lightly trafficked, the road is and there is plenty of room within the verge/highway boundary to create more space. The carriageway is not quite wide enough to allow mandatory cycle lanes in each direction although

advisory cycle lanes would certainly be practical, or alternatively mandatory cycle lanes for uphill cyclists (which will mean the cycle lane changes sides at the crest of Bonnyleigh Hill) with the centre line being realigned.

From Oldford the most direct route is via the B3090 to Frome, and as mentioned above a reasonable target might be to reach the junction of the B3090 with Princess Anne Road as this is likely to be included in any Frome Town cycling initiative. Even if Frome Town Council do not implement a strategy it is relatively straightforward to reach both the Town Centre and NCR 24 at Welshmill from here.

Initially the B3090 also has plenty of room both within the carriageway and on the verge, so there is plenty of room to facilitate cycling. The B3090 is more heavily trafficked than Frome Road and the need for protection and priority is greater. As the road climbs to Gypsy Lane there is less room available although there is still a footway on the east side of the road (the left when climbing towards Gypsy Lane) – the constrained length of carriageway is around 130m in length. Beyond Gypsy Lane there is a length of around 120m of narrower carriageway with no footway on either side, there is, however, a footpath behind the hedge, linking Gypsy Lane to the footway in front of Frome College.

It should also be noted that the B3090 has a 60mph limit between Oldford and Gypsy Lane – this could usefully be reduced to 40mph or even 30mph for the benefit of cyclists.

The obvious way to avoid this length of the B3090 is to route via Iron Mill Lane. There are disadvantages with this route, it is circuitous especially if one is headed for Frome College or the Frome Hospital/Medical Centre. Further, whilst Iron Mill Lane is never quite as restrictive as the B3090 around Gypsy Lane, overall the alignment is generally less satisfactory and it is likely that many cyclists would choose the more direct route to Frome even if Iron Mill Lane were the designated route.

We would suggest as a minimum the introduction of a cycle lane in the direction where cyclists are most vulnerable (this will change dependent on circumstances, and that cyclists are permitted to use the footway when climbing to Gypsy Lane and the footpath between Gypsy Lane and the college.

Beckington To Rode and vice versa

National Cycle Route 254 already passes through Rode High Street and then into Beckington Parish via Straight Lane, Parkgate Lane and Green Park Lane to Rudge Lane. Rudge Lane leads towards Beckington Village Centre via Goose Street. This route is not a designate cycle route although it is included in the below as part of the emerging Beckington Cycle Strategy. Given the NCR status this is a natural route between the two parishes.

The main barrier on this route is the crossing of the A361 between Parkgate Lane and Green Park Lane. This junction is subject to a 60mph speed limit, although only just outside the 40mph limit on the approach to Rode. This has two impacts – first, as cyclists are attempting to cross from a standing start they need a bigger gap in traffic to be confident of crossing safely, many motorists on this route are on a long-distance journey (it is a route of choice for many between Frome and the M4) and the combination of the type of traffic and the national speed limit means that motorists are not looking out for cyclists crossing so the emphasis is entirely on the cyclist.

Second, with a 60mph limit the possible measures to enhance crossing safety are more restricted. Manual for Streets includes many measures that can only be used in a 30mph or 40mph limit – at 60mph not only is the stopping distance for a vehicle greater but the possible interventions are fewer.

There are proposals to extend the 40mph limit to cover this junction, and a recent report by Moss Naylor Young identified issues with excess speed on the A361 within the parish. In implementing any crossing here, it would be beneficial to liaise with Rode Parish over other speed issues on the A361. At this stage we suggest increasing the visibility of the crossing point with advance signage and road markings.

Beckington Woolpack to the Full Moon PH Rudge and thus Rudge to Frome and Rode

Goose Street leads from Bath Street under the A36 Beckington bypass via an underbridge, and then leads to Rudge via Rudge Lane. Once under the A36 the road is subject to the national speed limit but in practice vehicle speeds are much lower. The road is generally around 4-4.5m wide but occasionally much narrower, at one point near Priors Court Farm the road is only just over 2m wide and even a car and a cycle struggle to pass each other.

The distance from the Woolpack to the Full Moon is approximately 3.5km. The junction of Goose Street with Bath Road is approximately 110m from the Woolpack, from here it is a further 400m to the A36 bridge over Goose Street. 750m from this bridge Goose Street/Rudge Lane has a junction with Green Park Lane, which leads to the A361 near Rode. Green Park Lane, and Rudge Lane east of Green Park Lane, are part of National Cycle Route (NCR) 254. A further 1000m towards Rudge there is a junction with Duck Pool Lane, a restricted byway which is covered later in this report and a further 1000m leads to Scotland Lane, which leads to the restricted byway connecting back to Whiterow Farm.

This route between Beckington and Rudge is suited to cyclists by virtue of low traffic speed and volume. It is never wide enough to allow cycle lanes and the level of traffic does not justify that provision. Primarily promotion as a cycle route is required through signage and road markings to encourage cyclists to believe that they belong on the route and to increase motorist's awareness of cyclists.

Woolpack to M&S

Bath road is wide, anything up to 9m in width befitting its former A road status. Road markings narrow the available carriageway at the Goose Street junction to facilitate safe egress from Goose Street, elsewhere on-street parking narrows the carriageway, sometimes to single-way working. Despite these constraints Bath Road is not fundamentally unsafe for cycling and at this stage encouragement is all that is needed. That said, parking in the length towards the village centre, whilst not necessarily all that hazardous does create an issue for cyclists especially if motorists coming in the opposite direction don't give way and attempt to pass in this section.

At this stage advisory cycle lanes and "give way to cyclists" signage for sections of restricted width would be beneficial. In the longer term, as with much of Beckington, the issue of on-street parking and resultant traffic management issues needs serious consideration.

Woolpack to Beckington Tennis Club

Warminster Road is similar in character to Bath Road and has similar issues with parked cars at the village centre end. Warminster Road itself is not fundamentally unsafe for cycling and at this stage encouragement is all that is needed. That said, parking in the length towards the village centre, whilst not necessarily all that hazardous does create an issue for cyclists especially if motorists coming in the opposite direction don't give way and attempt to pass in this section.

At this stage advisory cycle lanes and "give way to cyclists" signage for sections of restricted width would be beneficial. In the longer term, as with much of Beckington, the issue of on-street parking and resultant traffic management issues needs serious consideration.

Woolpack to Beckington First School

This is the shortest route in the strategy – the distance along Church Lane is 160m from Frome Road to the First School. Encouraging cycling to school is an initiative that could be encouraged village wide and would benefit from input from the School and the education authority as well as the Parish Council. Church Lane is generally lightly trafficked and has a footway on one side, sometimes both and is basically suitable for cycling to school subject to resolution of certain key issues.

The school serves children aged 4-9: these children will not be cycling to school unaccompanied and at the younger end of the age range they may be using a tag-along behind the parent's bike or a balance bike whilst a parent walks with them. Use of these modes would be facilitated by allowing parents and children to bring their bikes onto the premises whilst children dismount, and allowing the bikes of older children who are not using tag-alongs to be stored at the school during the day.

Further it will be necessary to assess any issue with parents' cars at the school to ensure these do not present a danger to parents and children cycling to school.

Key Recommendations

- Cycle priority measures on the routes to Frome College and Rode High Street
- Advisory Cycle Lanes and signage within Beckington
- Signage and road markings to encourage cycling and raise awareness of cyclists being present on Goose Street/Rudge Lane
- Cycle priority/Safe Routes to Schools initiative for Beckington First School and Springmead School

Costs

Typical unit costs for cycle measures are:

- A white line for the edge of a cycle lane - £1.50 per linear metre
- Colour antiskid surfacing - £28 per square metre
- Signage - £250 per sign (assumes a new sign on a new pole)

These are current contract rates and ex-VAT, obviously the rate paid in any instance depends on the individual contract terms

The following are initial suggestions:

Beckington to Frome College – total distance 3.7km

Mandatory lane in one direction, coloured at key points for emphasis

Proposal	Length/unit	Unit cost	Cost (note 1)
Mandatory cycle lane on one side from Woolpack to within 130m of Gypsy Lane	3400	£1.50	£5,100
Additional cost of colouring at key locations (note 1)	1354	£26.50	£35,881
Signage in support	20?	£250	£5,000
Signage in support of cycling on footway	4?	£250	£1,000
TRO for cycling on footway north of Gypsy Lane		£3,000	£3,000
Total			£49,981

- Note 1 – This is the additional cost over and above the plain white line demarcation
- Note 2 – although the mandatory lane would be on one side only, it would change sides to where the best benefit is offered

A361 crossing

Proposal	Length/unit	Unit cost	Cost
Advance signage and signage at crossing	12	£250	£3,000
Coloured surfacing	160 M ²	£28	£4,480
Roundels etc	4	£250	£1,000
Change to TRO for speed limit		£3,000	£3,000
Directional signage between Rode and Beckington	20?	£250	£5,000
Total			£16,480

- Note 1 – this cost has been developed without the benefit of any design to work to, and is in effect signage and road markings to raise awareness of the junction – a cycle and pedestrian crossing with waiting bays on each side and a refuge island could be created at a cost of circa £35,000.
- Note 2 – there is no evidence of a vehicle safety issue at this junction and thus it is unlikely to be eligible for any safety scheme in the absence of a specific proposal to enhance the facility for cyclists

Works within Beckington

Bath Road

Proposal	Length/unit	Unit cost	Cost (note 1)
Advisory cycle lane uphill only Woolpack to Memorial Hall	360m	£1.50	£540
Advisory cycle lanes in both directions Woolpack to Memorial Hall	360m*2	£1.50	£1080
Mandatory Cycle Lanes both directions Memorial Hall to Interchange – coloured lanes (note 2)	180*2	£28	£10,080
Signage in support	10?	£250	£2,500
Total (Note 3)			£14,200

- *Note 1 – for low cost figures site mobilisation will add significantly, these costs assume the works are part of a larger package e.g. all works on Bath Street or in Beckington in one package*
- *Note 2 – mandatory cycle lanes do not have to be coloured, but this would give maximum impact for drivers on entry to the village*
- *Note 3 – total includes advisory lanes in both directions – therefore row one, uphill cycle lane only, is not included in the total*

Warminster Road

Proposal	Length/unit	Unit cost	Cost (note 1)
Advisory cycle lane uphill only Woolpack to Interchange	800m	£1.50	£1200
Advisory cycle lanes in both directions Woolpack to Interchange	800m*2	£1.50	£2400
Mandatory Cycle Lanes both directions for final 100m to interchange – coloured lanes (note 2)	100*2	£28	£5,600
Signage in support	10?	£250	£2,500
Total (note 3)			£10,500

- *Note 1 – for low cost figures site mobilisation will add significantly, these costs assume the works are part of a larger package e.g. all works on Bath Street or in Beckington in one package*
- *Note 2 – mandatory cycle lanes do not have to be coloured, but this would give maximum impact for drivers on entry to the village. Note in this instance that if coloured lanes are adopted the costs for the advisory lanes is reduced by £300 as the mandatory lanes are an alternative not an addition*
- *Note 3 – total includes advisory lanes in both directions – therefore row one, uphill cycle lane only, is not included in the total*

Goose Street/Rudge Lane

Proposal	Length/unit	Unit cost	Cost (note 1)
Roundels on carriageway to raise awareness of cyclists	10	£250	£2,500
Signage in support	10	£250	£2,500
Total			£5,000

- *Note 1 – these costs are for the whole route to the Full Moon at Rudge – the route only consists of signage and road markings*

Development costs

The costs of developing and implementing the above are identified in a separate letter

Summary

There are several options to help promote cycling and improve cyclist safety between Beckington, Frome and Rode and within Beckington Parish, these are outlined above. Each and all can be developed in more detail. Those involving only road markings and signage can be delivered relatively quickly.

All works on highway will require highway authority approval, those affecting the A36 Frome bypass will need approval from Highways England which will be considerably more complex to get.

The upgrade of the two restricted byways has been considered and our view is that these are worthy long-term aspirations, especially that between Whiterow and Scotland Farms. However, they are more complex to deliver and need more detailed consideration.