

Sarah Hall
The Clerk, Nuthurst Parish Council
107 Morris Drive
Billingshurst
RH14 9ST
Via email

Your reference	006_2020-21
Project	Nuthurst to Horsham Cycleway
Date	7 August 2020

Dear Sarah

Nuthurst to Horsham cycle route options, engagement and concept design

Thank you so much for inviting me to tender for this exciting project with colleagues at City Infinity and Maps4Planners. I am pleased to append to this letter our fee proposal which provides a number of options to fit various budget levels. A complete service covering all identified options will cost £10,000 at our community day rates* and there is, of course, flexibility to change scope to fit any adjustments and additional requirements. We have suggested a separately quoted consideration of map-based engagement.

Your Brief and its appendix usefully highlight the very real challenges of making space for active travel along existing, often very narrow roads. A combination of route length (and therefore construction cost), property boundaries coming right up to the back of the footway, and other barriers including bridges and drainage ditches are typical of rural roads across the country. Such situations tend not to be covered by 'idealistic' existing policies or associated national design guidance supporting active travel.

Because of this, I believe "we", by which I mean your community working with us, have a real opportunity to consider all of the options available to us to create an outstanding example of what can be achieved in difficult circumstances. We hope that what might eventually be delivered with available funds can be considered a benchmark for others to follow.

Happily, we are supported by new, very strong Government policy which opens up a range of options from infrastructure building to providing funding support to enable cycles to be carried on rural buses: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/904146/gear-change-a-bold-vision-for-cycling-and-walking.pdf?fbclid=IwAR1pw33beGza-G9mogoWN_p5b3knm42YrFSTitDWqfgobYR5NlfzexlnwBU. The policy is very motivating and well worth reading in its own right.

I trust that the text on the following pages properly reflects and expands upon your thoughts. Do let me know if you think I have missed or misunderstood anything.

Please understand that whilst this project is focused on cycling, it will be equally important to us to consider the needs of pedestrians. Thus, any scheme principles, descriptions and concept drawings will demonstrate the additional benefits available to those on foot and for people with physical and sensory impairments. This includes incorporating local measures to improve wheelchair access to buses, for example.

Yours sincerely



Richard Lewis BA(hons)DipTP MTPS
Founder, ActivePlanning

*Community day rate: as a matter of policy both ActivePlanning and CityInfinity work .

Nuthurst Parish Council: Monks Gate to Horsham Town Centre cycleway

Introduction



Denmark: Cycleway that can be used by pedestrians. This example has gradients, curves and underpasses designed for easy cycling, but it can also be used by equestrians, wheelchair users and other pedestrians who are few in number. The guard-railing provides a safety buffer against high speed traffic where land ownership forces the path to be close to the carriageway.

ActivePlanning was established early in 2018 by Richard Lewis in answer to growing interest in the health impacts of land use planning and transport policies and decision-making. Recent Government policies relating to Covid-19 and a general shift towards thinking about low carbon transport, as well as the finding that obesity doubles people's vulnerability to the virus have added impetus to ActivePlanning's purpose.

The services offered by ActivePlanning are based on expanding the range of experience so far gained, including the most recent as follows:

- August 2020: part of a competition team bidding to produce a progressive model masterplan for part of Runcorn new town, focusing on active travel, feminist city principles, landscape, sustainability and community-building. With www.ecoresponsiveenvironments.com
- August 2020: Re-appointment, via Cycling UK, to DfT Local Cycling and Walking Infrastructure Plans (LCWIP) and Emergency Active Travel Fund Tranche 2 review panel (prospectively part of Active Travel England, TBC), with Sustrans and WSP.
- June 2020: Transport East strategic Infrastructure Development Plan including all maps, graphics and narrative, including officer engagement.
- February-March 2020: seconded to work part-time for Wheels for Wellbeing, a charity for Disabled cyclists, which provides opportunities for Disabled people to try out adapted cycles. Richard provided policy inputs including writing the publication, "My Cycle My Mobility Aid".
- Completed November 2019: Buckden Parish Council LCWIP with City Infinity and Maps4Planners, including community engagement.
- June 2019: Appointment, via Cycling UK to DfT pilot LCWIP strategic review panel, with Sustrans and WSP.
- May 2019: London Borough of Lambeth Low Traffic Neighbourhoods prioritisation study (neighbourhoods now being implemented as part of the borough's Covid-19 response), project managing Maps4Planners, and Lambeth Alternative Parking Standard, to reduce parking levels in new development compared with the London Plan.

Richard also brings 18 years of prior experience in town and transport planning across the public, private and community sectors, including writing policies, strategies and successful funding bids totalling £36.6m for two authorities. He has also undertaken self-guided study tours to look at and build understanding of infrastructure design.

City Infinity was founded in March 2017 by Mark Philpotts, as a trading name to facilitate his desire to explore providing bespoke technical support for clients needing help with practical walking and cycling design issues. To this end, City Infinity has completed a series of small technical support projects with most emphasis on active travel. A brief list of schemes and clients is available on the website www.cityinfinity.co.uk

Mark has achieved 25 years of civil engineering experience, working in areas as diverse as bridge management, development management, utility installation, traffic engineering, highway engineering and highways maintenance. However, he has always most enjoyed designing for active travel and particularly the small schemes that make the greatest difference.

Mark has extensive experience in project delivery and has been responsible for running rolling programmes of over 80 discrete schemes at any one time. At the other end of the scale, he has an almost fanatical interest in design detail and how street features fit together, as it is the details that can so often make the difference between a 'good' and a 'great' scheme. Attention to detail is also key to ensuring designs are accessible for all.

Mark is a strong believer in the power of designers experiencing the infrastructure they develop. He has perhaps taken this to an extreme by acquiring a Christiana Cargo Trike which has taught him far more about the stability and dynamic envelope of non-standard cycles than could ever be gleaned from a design guide! He is also a Member of the Beyond the Bicycle Coalition, a branch of the charity Wheels for Wellbeing, which provides a real insight into inclusive cycling.

As well as releasing design guidance through City Infinity's blog, Mark was the principal author of the Chartered Institute of Highways and Transportation's Designing for Walking guidance and is therefore recognised as one of the UK's leading experts on the subject.

Maps4Planners, run by Jake Sales, will provide associated GIS services including preparing GIS map bases for Mark's design work. The company regularly provides mapping work for ActivePlanning. In order to proceed, Jake will need the parish council's Public Sector Mapping Agreement licence.

Understanding



Typical inter-urban cycleway in the Netherlands. This is a “cycleway that can be used by pedestrians”. It provides meaningful protection from higher speed vehicles including HGVs, given greater emphasis and safety by the grass strip between cycleway and road. The garage opposite has its own cycleway access, recognising that cyclists may also want to use the shop.

We have explored the Parish using Ordnance Survey 1:25,000 scale maps, Google Satellite and StreetView. We have also taken into account commentary by Horsham Cycle Forum, which appears to provide a very accurate summary of the issues we ourselves have observed.

Our observation so far is that the A281 is certainly a very narrow and dangerous road with a number of bends, sections with overhanging trees that produce shade and therefore partially mask cyclists and pedestrians, some steep gradients and pinch points. The footway, which runs alongside, is clearly very narrow and rarely maintained. It is likely to be used more intensively within the built-up areas of Mannings Heath and possibly between Monks Gate and the shop / garage at Mannings Heath. In our initial assessment we have picked up the following issues:

- On some sections, the narrow footway is constrained by property boundaries that come right up to the rear of the path, causing a restriction of its potential width.
- On some sections, boundaries are ‘softer’ (with more scope for amendment with landowner agreement), but there may be other barriers to account for including drainage ditches that would be expensive to engineer.
- The bridge crossing the River Arun is clearly very narrow, but it is unclear whether providing a parallel foot / cycle bridge would be feasible.
- The wide entrances to the garage are potentially resolvable, either by narrowing the access points or by routing the path around the rear of that property.
- Crossings of the narrow, fast road are potentially difficult, particularly at peak times. This affects community access to the shop and post-office, both of which are situated in the garage.

In this proposal phase we have also taken a brief look at potential alternative routes and scenarios, which we have reflected in the proposed method:

- The potential of alternative routes, but we would dismiss these for utility cycling because, as the Brief points out, they would not provide a direct connection that also feels safe at night. Even so, it might be possible to introduce some localised improvements on the A281 that connect together networks of quieter roads to form a combined local utility / longer distance leisure network that promotes and enables active travel as an economic instrument to support local shops and services through leisure and tourism.

- The possibility of combining cycling with local bus services, by providing secure cycle storage facilities at bus stops and enabling cycles to be carried on some bus services (as proposed by the Government, backed by funding). This option does seem realistic and affordable, if paired with measures such as lower speed limits and modal filtering within the villages to reduce through motor-traffic and create safe local environments for active travel. Indeed, by increasing the catchment of bus services in this way it is possible that the buses could run commercially without the uncertainties of continued subsidy.

Method



Cycleway side road crossing treatment giving continuity to the cycle lane and footway. London Borough of Waltham Forest. A similar treatment could be applied to the garage access at Mannings Heath.

Based on our understanding and assessment so far, our methodology is as follows:

- A study and concept – feasibility design for a widened, shared-use path alongside the A281 connecting Monks Gate and Horsham, with segregated sections where pedestrian flows are higher. The shared-use path would be called a ‘cycle track that pedestrians and equestrians may use’, which is similar in concept to some rural paths in Denmark. It would be designed in accordance with the newly-published Government design guidance LTN1/20, and graded for use by cycles with pedestrians sharing the space in much the same way as they do when walking down a rural lane. The question here is whether to widen the existing path or provide two paths, one on either side, by slightly widening the carriageway and providing protection.
- Concept-feasibility optioneering to provide short connections linking networks of quieter roads. This includes either cycle tracks alongside the A281 on short sections, or utilising existing public rights of way by upgrading paths to hard surfaces. The option would be combined with lower village speed limits and potential modal filtering to remove ‘rat running’ traffic, which is often faster and more dangerous than local traffic.
- Concept feasibility optioneering to look at providing secure cycle storage ‘cages’ with e-bike charging facilities at bus stops and some on-bus cycle carriage. This includes talking with bus operators and the highway authority.
- Engagement to discover the actual level of likely demand, testing the extent to which the statement, “I will cycle if it is easy and conditions feel safe”, is true.
- Further design and costing work for all or some of the components listed above and in the methodology table.

Project plan: stages



Rural bus service in Scotland that carries cycles.

We will undertake the work broadly as follows:

<p>Stage 1 Evaluation of preferred route and alternatives</p>	<ul style="list-style-type: none"> • Maps4Planners will produce a MasterMap layer showing all hard boundaries, the main carriageway and footways along the route. • We will walk the entire route to Horsham town centre and the southern terminal point, taking notes and photographs, estimating existing known highway boundaries and identifying sections where ownership is unclear or boundaries are 'fuzzy' (to inform the purchasing of any necessary Land Registry data on land ownership boundaries). Most boundaries will be fairly obvious, particularly residential front gardens. • The scope of the project includes the selection of a finish point as close to Horsham town centre as possible. We will investigate suitable route options, including whereabouts the cycle infrastructure will start and finish. • During the walk we will take spot measurements of existing carriageway, footway and highway envelope widths for accuracy compared with OS data. • We will identify obvious constraints, including: <ol style="list-style-type: none"> 1. Restrictive land ownership boundaries, particularly those abutting the rear of the footway 2. Statutory service chambers / boxes etc, including telecoms, electricity and gas that may be affected by the path construction, adding cost. 3. Other physical constraints that would present challenges to construction.
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	<p>It is unlikely that there would be any other specific regulations and legal constraints other than third party land ownership and those we ourselves might propose, for example new speed limits.</p> <ul style="list-style-type: none"> • We will develop a series of design parameters that comply with the new LTN1/20 cycle infrastructure design guidance, including: <ul style="list-style-type: none"> ○ Required minimum widths for one and two-way cycle tracks, shared paths and pedestrian footways. These are typically 1.5m minimum for a one-way cycle track, or 2m for a two-way track, for not more than 100m, plus a buffer zone of min. 0.5m against the traffic. Minimum footway width is 1.0m for not more than 100m. ○ The requirement for level access to suit wheelchairs and adapted cycles, with no ‘dips’ for driveway access points (shorter ramps instead) and no excessive crossfalls (maximum 1:40). ○ The need to reduce speed limits within the three affected settlements, accounting for proximity of the cycle track to passing motor vehicles and the likely need for carriageway narrowing.
<p>Stage 2: Evaluation of alternative options – connecting existing quiet routes</p>	<ul style="list-style-type: none"> • We will use the initial site visit as an opportunity to explore, on foot and / or cycle, one or more alternative routes that would connect together networks of quieter streets. Our initial analysis has identified some initial candidates for a wider network, including: <ol style="list-style-type: none"> 1. Short sections of pedestrian / cycleway alongside the A281. 2. An existing public right of way linking Nuthurst Road with the A281 close to Mannings Heath, which would need to be ‘upgraded’ to a bridleway and given a proper rideable surface. 3. An existing route via Sedgwick Park which appears to be a bridleway or byway going to the east of St Andrew’s primary school. There is no right of way connecting with Sedgwick Lane but this could be resolved if the landowner is willing to create a (restricted) permissive path, e.g. for passholders. Doing so would connect the village of Nuthurst fairly directly with Horsham. • We will also explore the option of providing secure cycle storage with e-bike charging at bus stops, investigating potential products and pricing. In combination with short routes connecting networks of quieter roads, this option would probably be the lowest cost. This includes talking with bus operators about government-funded alterations to bus interiors to allow cycle carriage.
<p>Stage 3 engagement</p>	<p>Value for money needs to be demonstrated, particularly for any scheme valued at over £2m, based on a business case that would need to be presented to Government by the local authority (in this case West Sussex County Council). Part of this process requires an indication, not only of the wider cost-benefits to health and economy, but of the actual local potential to achieve a shift to active travel.</p> <ul style="list-style-type: none"> • In this stage, therefore we will advise the Parish Council about preparing a residents’ survey, which: <ol style="list-style-type: none"> 1. Asks about people’s current cycling, including attitudes to cycling (for example “I will never cycle / I always cycle”). 2. Asks about existing or potential cycled journeys locally.

	<ol style="list-style-type: none"> 3. Asks what 'conditions' people have that would lead them to cycle, with potential interventions ranked in order of importance. This includes a menu of the options described in this proposal. 4. Describes the outcomes of the study and a summary of possible interventions together with reasonings, and asks people to input their ideas and tell us what they agree / disagree with and why. <ul style="list-style-type: none"> • The survey would seek to identify how much potential there is for cycling (existing and latent demand), what facilities people want, and what proportion of the population would cycle if conditions were better for them. • Optionally we can create a simple map-based engagement platform or commission something more sophisticated such as Commonplace. This would enable people to pinpoint their suggestions and tell us what is good / bad locally and what they would like to see. We can provide a separate quotation for this.
<p>Stage 4 Further design: concept</p>	<ul style="list-style-type: none"> • At this stage, which is separately costed, we will present the options to be taken further, including outline cost estimates (where possible). The choices are: <ol style="list-style-type: none"> 1. We will develop further all the options as outlined above, so that there is a choice and comparison. The output of these will be a series of reports with conceptual designs and outline costs. 2. We will develop one or more of the options, of your choice, again with conceptual designs and outline costs. For the cycle storage option we will provide cost estimates by CycleHoop, the best-known supplier, and the only supplier that provides both the infrastructure and subsequent ongoing maintenance service for subscribing users.

Our final output will be a report that records all of the professional and public inputs, which can be used to build a case for the infrastructure. The report will, in addition, include:

- A parish covering note signed by the lead parish councillor
- A vision for the future of active travel in Nuthurst
- An executive summary which makes reference to the Neighbourhood Plan
- A chapter summarising what people told us about their cycling and what they need in order to cycle (more often).
- A report on each of the options selected for further development (A281 cycleway, conversion of footpaths, bus stop cycle storage), including thumbnails and A3 scaled copies of CAD drawings and sample photos / renderings.

Stages, costs and timescale



Hard-surfaced paths need not look out of place in a rural landscape (pictured from a train)

We estimate that this five-stage project will take about two months from inception, bearing in mind other work. This does not include consideration of any public engagement events, which will create a pause prior to the selection and completion of further work on the options to be developed. Therefore, we have not been specific about timings, but given instead the number of days for each stage. That said, we anticipate at least near-completion by the end of November 2020.

Fees are based on our respective 'community rates'. As a matter of our respective policies, these rates are set at an affordable level that is substantially below the levels we normally attract. This enables community organisations including parish councils to have access to affordable consultancy services on the basis that what is being achieved contributes towards the goals of better health and lower carbon emissions.

Stage	Summary	Estimated days			Notes
		AP	CI	M4P	
0	Online inception and project administration	1			
1	Prepare OS PSMA, digital mapping of OS Mastermap data showing parish boundary			1	
	Route inspection: A281 (*includes inspection of alternatives in stage 2 and 3 below)	*1	*1		
	Route assessment: A281 including land ownership, available space, initial options.	2	2		
	Preparation of stage 1 report (to be integrated into the main report later)	1	2		
2	Site inspection: alternative routes (*rolled into stage 1)	0*	0*		Site inspections to be carried out with due regard to Covid-19.
	Initial estimate of land ownership (confirmed at later stages)	1			
	Site options for bus stop cycle storage (*rolled into stage 1)	0*			
	Contact bus operator(s)	1			
	Preparation of stage 2 report (to be integrated into main report later)		2		
3	Work with parish council to develop recommendations for resident surveys to establish likely usage. We can quote separately for carrying out or commissioning the surveys and engagement mapping if required.	1			
4 option 1	A281 Implementation strategy including outline concept designs, separately costed for areas outside the parish boundary		4		
4 Option 2	Links between quiet lane networks: Implementation strategy including outline concept designs, costed (separately for any links going outside the parish boundary)		1		
4 Option 3	Bus stop cycle storage, e-bike charging and / or on bus cycle carriage implementation strategy including outline costs.	2			
5	Final draft report incorporating outputs from stages 1-4 above and incorporation of stage 3 residents' survey responses	5	1		
	Response to one set of consolidated comments	1			
	Remaining typos, minor changes, etc (*free)	0*			
	Choose from stage 4 options below.				Total costs (no VAT)
	Day rates	£350	£350	£500	
	Total days: all options	16	13	1	
	Total cost: all options	£5,600	£4,450	£500	£10,000 R
	Total cost: developing option 1 only	£4,900	£4,200	£500	£9,600
	Total cost: developing option 2 only	£4,900	£3,150	£500	£8,550
	Total cost: developing options 1&2 only	£4,900	£4,450	£500	£9,850
	Total cost: developing options 2&3 only.	£5,600	£3,150	£500	£9,250
	Note that on options 2 / 3 there will also be savings made with the cost of stage 5 report writing, to be revised separately.	R=rounded down to £10,000			