

## Cam & Dursley Greenway – Traffic free paths for walking and cycling Map 1

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--- On road  
..... Traffic free



Former railway maintained between hedges - near Box Road



Photo of station cycle parking at Cam & Dursley Station



Parked cars force cyclists to move into road. This can cause conflict with following motor traffic

Cam & Dursley Station

Box Road is lightly trafficked outside peak hours, within 30 mph limit and suitable for cycling. There are concerns over use in peak hours, but it is probably not practical to make physical improvements on highway. Any off highway route to the station would inevitably be longer, and consequently unlikely to be used at those times it is most desirable. Cycle warning signs should be considered.

A gateway should mark the start of the Greenway. The railway corridor is well preserved between hedges

### Typical construction of tarmac path

#### Notes:

1. Centre line of path as indicated on General Arrangement Plans.
2. Soft and woody vegetation to be cleared 2 metres from edges of path and 3.5 m above path surface. No works to specimen trees other than as directed by approved arboriculturalist.
3. All cleared vegetation to be chipped and spread locally on site. Larger timber to be supplied to land owner if required or stacked into habitat piles on site.
4. Excavation to level existing track to be kept to a minimum. Arisings to be temporarily stored for subsequent use as support to edges of path. Excess spoil to be spread locally on site.
5. Finished surface to be laid to 2.5 % cross fall/camber, to be free draining, free of undulations and or steps and should not pond or hold water.
6. This drawing to be read in conjunction with all other drawings.



- 2.5m x Sealing Grit
- 60mm x 2.5m Blinder course 20mm nominal aggregate (machine laid)
- 100mm x 2.8m well-graded 28mm down granular fill or similar approved
- Granular herbicide laid across formation
- 50mm (max) x 2.8m excavation to clear vegetation and level existing ground

0.5 m 2.5 m 0.5 m

**sustrans**  
JOIN THE MOVEMENT

Standard Path Cross Section  
(Bound) 3  
Dwg No. Sus/SCS/XA/03  
May 2007



## Cam & Dursley Greenway – Traffic free paths for walking and cycling Map 2

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--- On road  
..... Traffic free

Link to station  
(See Cam – NCN41  
Options, page 2/13)

Future link to  
development  
east of railway

Any extension of Middle Mill could only be across the former railway to the east of the main site, and this is owned by the Mill owner for this purpose. It would certainly be very difficult to accommodate the path within the Mill site and a diversion round the field should be considered, despite the fact that the route is reserved in the local plan

Link to industrial estate ramps down from path using field edge to pass below greenway using existing bridge and public footpath

The former railway is preserved in the Local Development Plan for the Cam & Dursley Cycle Path. Any development on land east of the former railway should include construction of the path between publicly accessible points to create useful access to and from the development proposed

AREA ZONED FOR  
DEVELOPMENT  
(EMPLOYMENT USES)

The existing track  
would need to be  
resurfaced



Concrete railway overbridge serves as access to Draycott Industrial Estate



Field east of Middle Mill newly planted with trees. The path should run close to field perimeter to allow future development of mill



Existing track round field would require improved surface



## Cam & Dursley Greenway – Traffic free paths for walking and cycling

### Map 3

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--- On road  
..... Traffic free

Add parapets 1400mm high to existing river bridge

Existing track would need to be re-surfaced to good standard and slightly raised on causeway above adjacent wet field

Greenway runs in fenced corridor on line of former railway. If agreed by landowners the riverside land should be maintained as public access on foot, opening up this short stretch of the River Cam for public enjoyment subject to occasional closure for dredging of the river

See enlarged detail

The industrial unit at the southern end of this section is partially built on the former railway and the re-use of the railway as a greenway would entail passing very close to the unit, with attendant security issues, and the loss of a substantial proportion of the units' car parking spaces, if the path passes to the west of the unit. This option should be retained for future implementation if unit is redeveloped.

Rowley is a quiet residential road which being narrow with poor visibility at this corner encourages careful driver behaviour. The width at the corner is ample for vehicles and walkers and cyclists to pass in comfort

On road – making the turn right/left aids security as the cyclist does not need to cross in front of oncoming traffic. Parking restriction close to the junction would lengthen sightlines and a bollard on Everlands would deter traffic from cutting across the corner and endangering right turning cyclists.

The road width would allow 1.5m wide cycle lanes on both sides, but as this road is fairly quiet, and traffic calming will be improved, cycle lanes would be of marginal value. The exception would be at the junction with Woodview Road where a cycle lane across the junction would highlight cyclists' presence to motor traffic



Very limited space at rear of industrial unit built on line of old railway



Good road width on corner in Rowley



# Cam Village Centre – proposal for shared footway

Widen footway to 3m outside Village Hall by rebuilding wall set back

Open area paved to maintain 3 metre width

Footway width outside fish and chip shop between shop and kerb of loading/parking is less than 2.5m. Increasing width to 2.8m would mean reducing width of bay to 2.0m and this should be considered.

There will be frequent movement cars and the shop, but the area is well lit at night, sight lines in all directions are good, and car drivers and passengers will normally be careful opening car doors.

Shared use signs will highlight presence of other users. Detering pavement parking would assist footway users

Relocating one planter would improve circulation in this area

Narrowest point is 2m on corner. Bend out kerb to min 3 metres at this point

The planting should be set back by 1m and the footway widened to 3m round the corner

Site to be developed. Opportunity should be taken of widening footway to 3.0m for shared use

Parish site

Proposed shared footway

0 25 50  
metres



Service access and footway at Village Hall



Corner by Village Hall



Shop forecourt



Bay outside fish and chip shop



Planters and phone box



Narrowest part of corner



Crossing



Planting at corner

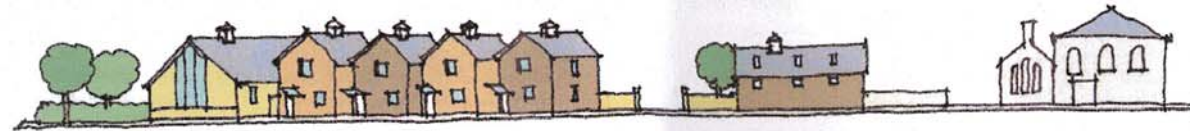


Parish site to be developed



Everlands junction





ELEVATION TO CHAPEL STREET



AERIAL VIEW

- On road
- ..... Traffic free



PLAN VIEW  
APPROX 1:500

3m @ 1:50  
12m @ 1:200  
75m @ 1:1250

1.2m @ 1:20  
6m @ 1:100  
30m @ 1:500

# OUTLINE PROPOSALS



## Cam & Dursley Greenway –

### Traffic free paths for walking and cycling

#### Map 4

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The existing speed cushions on Everlands are ineffective and their positioning near the kerb encourages motorists to drive very close to the footway to avoid them, intimidating pedestrians, potentially even putting them at risk.

Traffic generated by the Littlecombe re-development is likely to use Everlands as a short cut to the motorway or station, and physical measures will be put in place to slow traffic and discourage such use as inappropriate for this type of road. Such measures should ensure that conditions for walking and cycling are enhanced

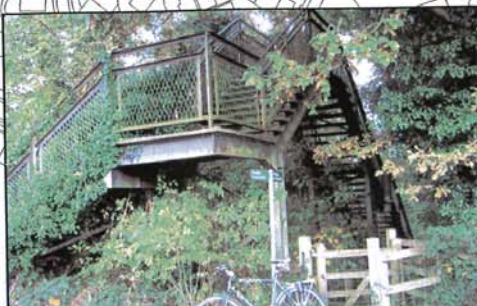
--- On road  
..... Traffic free



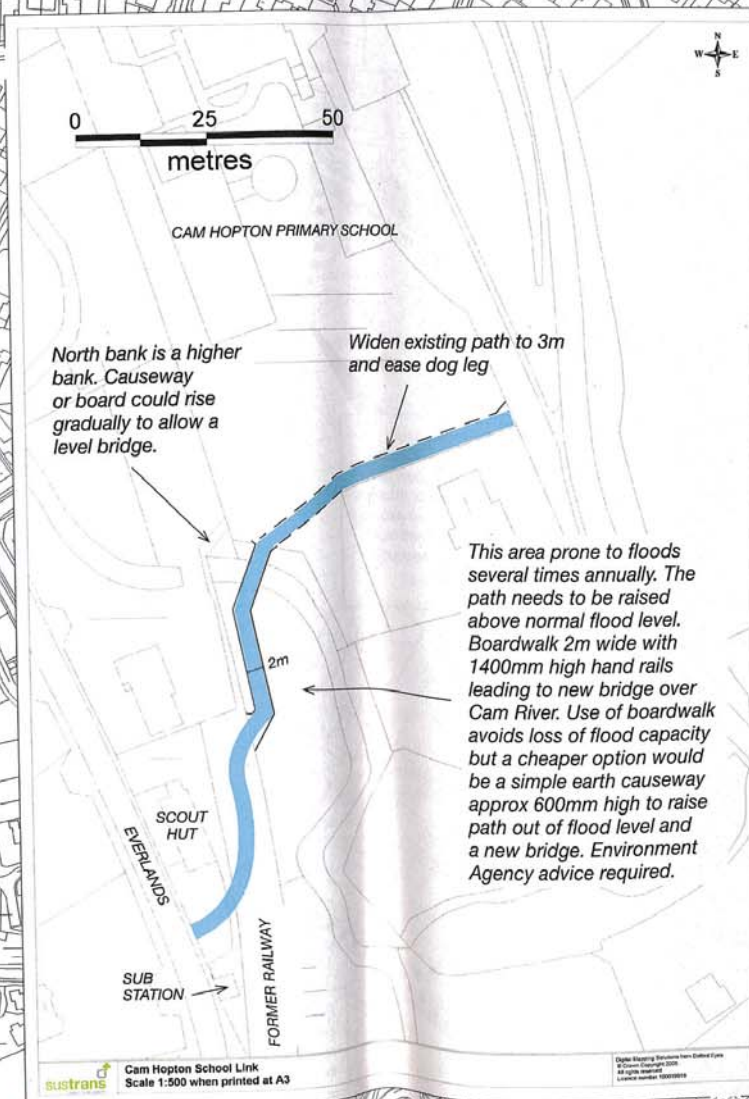
Ineffective speed cushions at Everlands will be replaced by chicane arrangements



On approach to Church Lane junction path should switch to wide verge to avoid road junction



The old gallows footbridge could be restored and possibly re-sited on the greenway as a gateway feature



Link to  
Cam Everlands  
Primary School

See enlarged detail



Near Cam Hopton Primary School

If Everlands is traffic calmed, it would not be necessary to re-use the old railway for the greenway, though it might be considered desirable regardless

The greenway should in any event switch onto the old railway near the southern end of Everlands. The footway on Church Road is adequate width for shared use to make the link to the Littlecombe site cycleway entrance

Access to be closed as part of Littlecombe works, a 1.2m wide gap should be retained for cycles only



## Cam & Dursley Greenway – Traffic free paths for walking and cycling Map 5

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The walking and cycling map of Littlecombe is shown separately

Service road to be closed to through traffic – this will assist cycle movement from residential areas north of Rednock School

New traffic lights to be installed to include pedestrian/cycle crossing phases (in hand 2008)

Public footpath re-aligned by Rednock School under construction Feb 2008

Greenway follows existing alignment at steady easy gradient. the path width should be widened to 2.5 or 3.0 metres to carry high flows at peak hours as this will be a primary route to Rednock School

Existing path drops and rises. Re-aligning the path by constructing a new path at a steady gradient through the trees to the west avoids the loss of height and sight lines could simultaneously be improved

New 3m wide shared footway constructed Feb 2008

Widen existing footpaths to 3m for shared use from Kings Drive to new crossing to assist school journeys

Widen footway to 3m for shared use. This will form a useful cycle/pedestrian link to the town centre

Barriers should be removed and replaced with bollards

Newly constructed ramp links Littlecombe development and Rednock School path

Access to Littlecombe site shared pathway network (see separate map – Littlecombe Indicative Masterplan)

--- On road  
..... Traffic free

The desire line for travellers between Everlands and Rednock School and Dursley is Kingshill Lane. A traffic free route is precluded as there is no land available but conditions could be improved by an uphill cycle lane, heading to a shared footway and a crossing at the realigned junction with Kingshill Lane. Travellers in the northerly direction would cross west of the junction and use the redundant road to run downhill, where cycle speed will more closely match vehicles, to Everlands



Kissing gate should be replaced by open gap 1200 mm wide. If livestock must be penned, a 1200 mm wide cattle grid and a self-closing gate alongside should be specified



Site of new light controlled crossing at junction with Kingsmill



The existing path should be widened to 2.5m minimum



The loss of height in the existing path could be avoided by diverting the path round the contour near the base of the trees to rejoin the path near the telegraph pole



New ramp constructed from Littlecombe site



## Cam & Dursley Greenway –

### Traffic free paths for walking and cycling

#### Map 6

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----- On road  
 ..... Traffic free

This is an important link to town. The redevelopment of the old fire station should include proper provision for cycle access to the new Sainsbury store and the town centre

The link for cyclists and pedestrians moving from May Lane to Parsonage Street is difficult and could be improved by widening the footway on the junction to help the transition to Parsonage Street – see inset

Sainsburys development should incorporate 1:20 ramp for access from north with minimum switchbacks of acceptable radius

Proposed paths through Littlecombe development shown on separate map

Links to Littlecombe

Toucan crossing

Existing pedestrian crossing

Cycling should be permitted and cycle racks installed on Parsonage Street

Library

Re-site traffic light away from corner or fix to building

PARSONAGE STREET

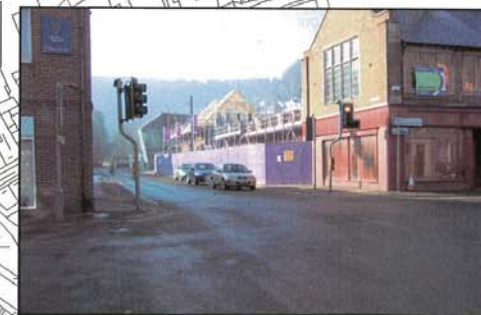
3m at corner

Build out footway

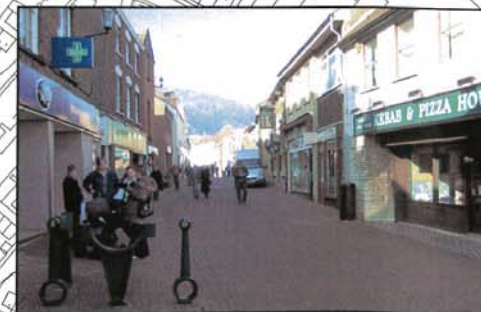
Set back stop line

7m

PARSONAGE STREET

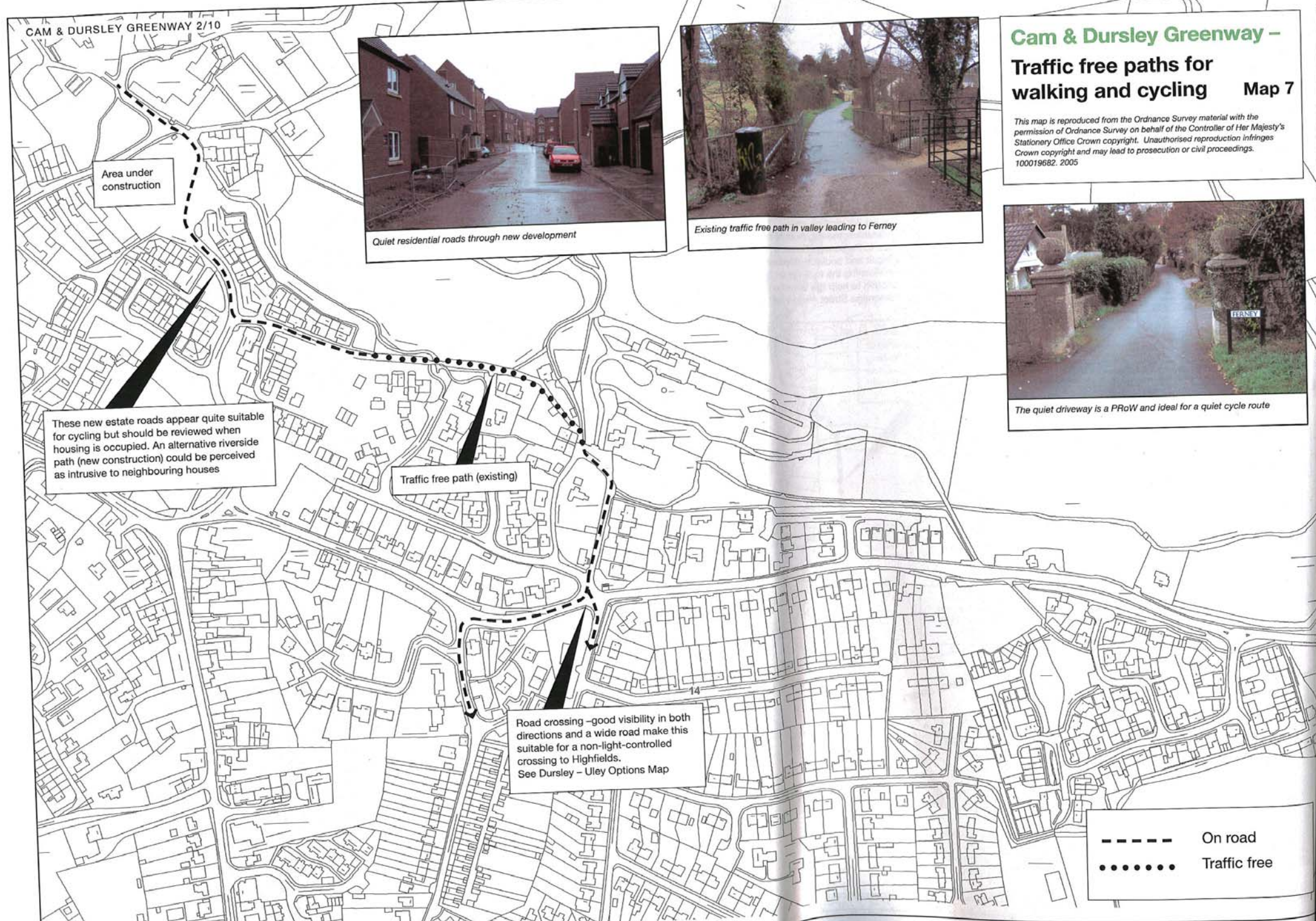


Note the very narrow pavement obstructed by the traffic light next to the Co-Op to left of the traffic light



Parsonage Street Dursley – there is no reason that cycling should not be allowed to improve access by cyclists to shops. Cycle parking should be provided











# Cam – National Cycle Network Route 41: Options Map

The map shows two options identified as potential links. Both have their pros and cons.

The western option using the bridleways has the advantage of being almost entirely traffic free along very attractive green lanes, crossing the A38 at a safe point. The disadvantages are the cost of construction and future maintenance, and the need to divert cyclists on to High Street, Cam at a point where more nervous cyclists may be intimidated by the traffic and parked cars.

The costs need not however be excessive if it was accepted that a well made stone path was acceptable, which would be the case if the path received only low levels of vehicle use and regular maintenance. Also, as the section of High Street to be negotiated is quite short, nervous cyclists could at least walk the footway for this section.

The eastern option has the major advantage of being easy to achieve on highway land at relatively low cost (excluding a new bridge). It also links directly between Cam and Slimbridge School (attendance of Cam residents at Slimbridge School not yet established). The disadvantages are that Sustrans research

indicates that traffic free paths alongside busy roads do little to encourage new and returning cyclists because the environment of the path is not perceived as pleasant, and sometimes not even as safe. The railway bridge lacks any footway, and certainly the cost of providing one would far exceed the total cost of the western option.

## Conclusion

A worst case scenario on the railway bridge of two parties of children cycling in opposite directions meeting on the bridge at the same time as an HGV is the major objection to the eastern option. Unless this obstacle can be overcome by on highway works (for instance alternate working on the bridge) the western option must be preferred. Consultation with Gloucestershire Highways indicates that on-highway works are unlikely to find favour on grounds of restricting traffic flow.

## Notes

1. The lane to Gossington is quiet and suitable for family cycling and links directly to the National Cycle Network Route 41.



Note 2



Note 3



Note 5



Note 6

2. The single lanes of the A38 at this point are separated by a central reservation and incorporates cycle lanes in both directions and there are good crossing points on both sides of the bridge with good visibility so that this offers a good point to cross this busy fast road.
3. This green lane is shown on the map as a RUPP but would now be classified as restricted bridleway. It appears little used but is maintained. The surface would need to be re-constructed and regular maintenance undertaken to keep it clear of the neighbouring hedges.
4. Although not designated as a public right of way, there is a fenced path (badly overgrown at present) within the motorway perimeter. This would need to be surfaced, and could readily be widened by one metre to make it quite suitable for shared use. This path should be designated as PROW.
5. An underpass beneath the M5 exists and is suitable for cycle (but not equestrian) use.
6. A fenced corridor exists for the public footpath, and if cleared could be suitable for shared use. At present the vegetation renders it impassable (November 2007).
7. This green lane is partially tarmacked in good condition as far as the entrance to the Cam Parish Playing Fields and has the remnant of a stone surface but would need to be restored for shared use. The track is used by farm traffic, and there is a history of fly tipping. A gated entrance to control vehicle access would address this problem.
8. Link to the main road. Flush kerbs at the junction of Morris Orchard at the High Street required.
9. In order to access the Cam & Dursley Greenway, a short stretch of High Street must be negotiated. There is currently no assistance for cyclists in the way of road markings, or cycle lanes, and this section of road is often used for on

highway parking. Nevertheless, observed speeds are low within a 30mph limit, and warning signs would probably be sufficient for cyclists making this link.

10. Proposed Cam & Dursley Greenway links to Box Road on highway section. Transition to the shared footway can be made near the junction with High Street.
11. It would be possible to use the existing footway next to the carriageway for a shared use path. Sufficient width is available (min. 2m surfaced width).
12. The access road to the few houses in this area is quite suitable for shared use and a short section of new path could link back to the highway across the small green just south of the bridge over the railway.
13. The highway over the railway bridge is not provided with a footway, and there is no space available to create one. This forces walkers and cyclist onto the highway at a point at which space is constricted and vehicle speeds appear quite high. Should path users need to cross at this point there is a high potential for serious accident. A new lightweight bridge over the railway would resolve this issue, but the cost of the bridge and abutments, and the cost of working over a mainline railway would probably be prohibitive.
14. The wide verge on the east side of Draycott carries a footway. This could be simply widened to 2 metres for shared use.
15. The junction with Wisloe Road should be re-aligned to reduce the radii of the curves and improve pedestrian and cycle crossing including flush kerbs.
16. A crossing point on the A38 exists at this point with an easy link on St Johns Road to Slimbridge Primary School.
17. Quiet lane to Slimbridge.
18. A more direct link between the greenway lane and the station would be along Manor Avenue. This is blocked to traffic at the junction with Draycott, where it could join a new shared path on the wide verge. The link would improve access from residential area to station.
19. In front of garage care needs to be taken to cross slip road at right angles, requiring realignment of the slip road. The use of the highway verge should be returned to the public for a shared path.
20. Cross Draycott just north of the Industrial Estate entrance. Extra width may be needed to rear of bus shelter.



Note 7





— On road  
— Traffic free



Note 12

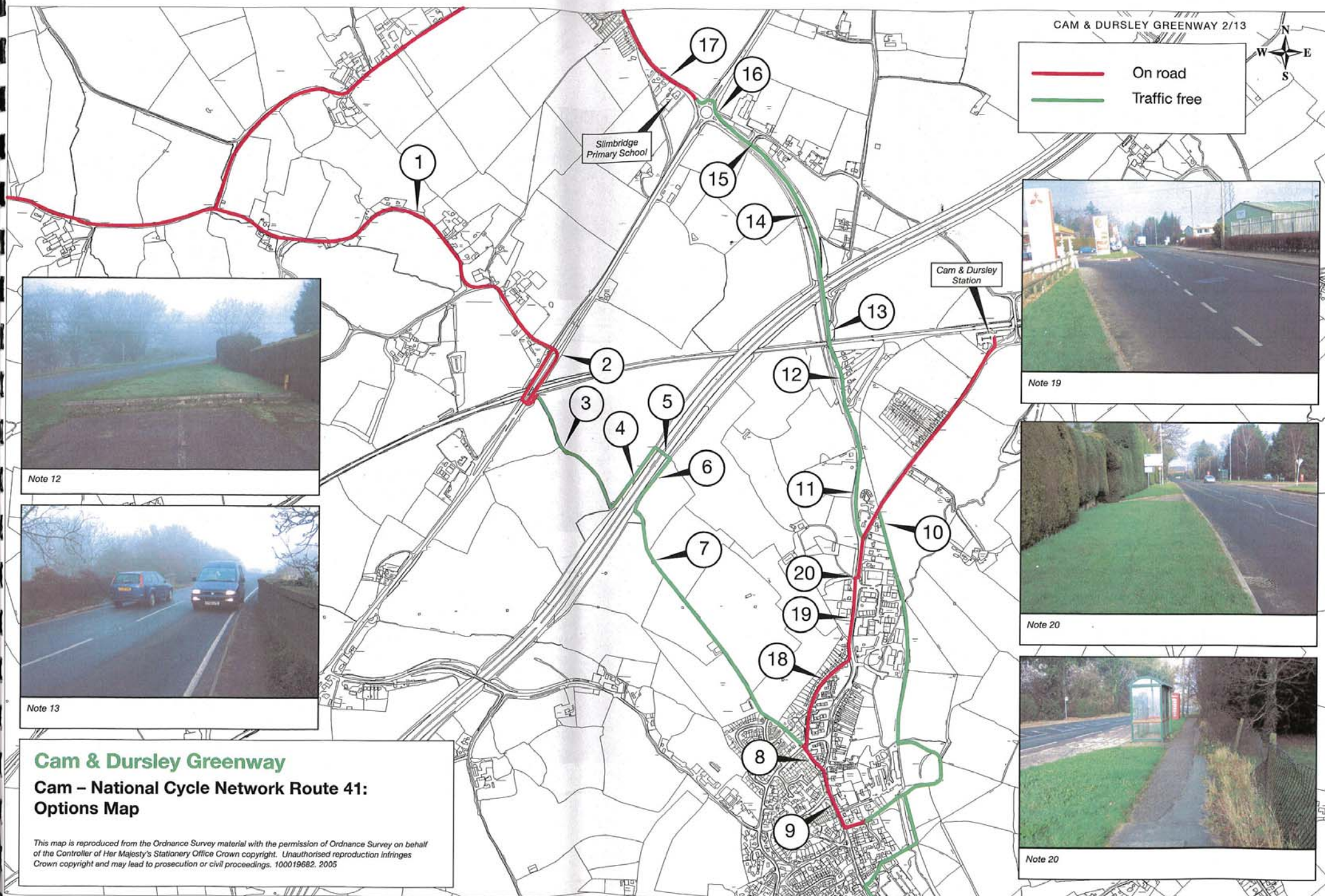


Note 13

## Cam & Dursley Greenway

### Cam – National Cycle Network Route 41: Options Map

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Note 19



Note 20



Note 20



# Notes on Cam & Dursley to Uley Options Map

The option of using either the B4066 or the footways alongside has been considered and dismissed on the grounds that the road is not conducive to cycling due to traffic volumes and speed: narrowness, and hilliness. The adjacent footways are narrow and not capable of widening within the verge width, and require a crossing about midway between Uley and Dursley. A route in the fields next to the road is ruled out due to a number of houses next to the road in the desired alignment.

The routes considered rely on existing rights of way. Walkers and cyclists have a right to use bridleways. Only walkers may use public footpaths. Further work would be worthwhile to investigate possible options requiring land acquisition.

1. Springhill is a quiet rural lane which opens up good views across the Severn Vale. The climb is about 1:12 on this section.
2. The road ascends to a height of about 140 m before dropping back to Uley.
3. The main road through Uley should form part of the route as this is the main means of access to the village.
4. The bridleway is a well made stone road requiring little improvement at this point.
5. The standard of the bridleway degrades to a muddy rutted track and requires substantial reconstruction for cycling, or even, in wet weather, for walking in comfort.
6. The line of the bridleway is unclear on the ground and does not appear to match the OS map. It joins a well made farm track south of Coldharbour Farm.
7. Coldharbour Farm – the bridleway runs through the yard and there is potential conflict with livestock and farm operations. This could be managed simply however by alerting path users and farm workers of the probable presence of the other, or alternatively a small modification to the path alignment away from the yard sought.
8. The bridleway is signed alongside a well made driveway (though it appears to share the driveway on the OS map) which is narrow and unsurfaced. Ideally the path should share the driveway, or if this is not the public bridleway, the existing path rebuilt and widened.
9. This very quiet lane passes Uley playing field.
10. This is clearly an ancient trackway and a 'white road' on the OS map. It is probably a public road, but clarification is required. It offers a rather steep access to the bridleway along the foot of Coopers Wood, quickly narrowing into a sunken lane. There is a major issue of intrusion with the house next to the track.

11. The bridleway is a very attractive woodland track through beechwoods which probably served the old quarries. There is a good stone base on much of the length, but for everyday cycle use a well drained smooth surface should be the objective, and such a surface may be resisted by those who feel that such a path is visually inappropriate in this rural woodland setting.
12. The more open track (Ganzell Lane) here requires reconstructing, but the section west of here is used by vehicles and has a good, if rough, base.
13. The wide verge at the top of Byron Road could be used to make a traffic free link to the network of quiet residential roads of Highfields.
14. A path off Somerset Avenue gives access to the rear entrance to Dursley Primary School.
15. The crossing of Uley Road is achieved easily at this point where the road is wide, speeds slow, and visibility good. Links to Cam & Dursley Greenway.
16. This is a private road serving a Severn Trent Water pumping station.
17. Achieving this entry to Dursley requires a new path around the pumping station. The field accesses at this point would require special attention.
18. New path along edge of public open space.
19. Access to front of Dursley Highfields Primary School.
20. The path runs close to the hedge through open field – it is a public footpath only and would have to be upgraded. There are likely to be considerable issues with farming practice co-existing with the shared use path which would require careful consideration.
21. The conflict with farming and intrusion issues are probably insurmountable in the vicinity of the farm house, so that a diversion of the path might be the only way forward.
22. The path running close to the field boundary reduces potential for conflict.



Note 10



Note 11



Note 12



Note 13



Note 14

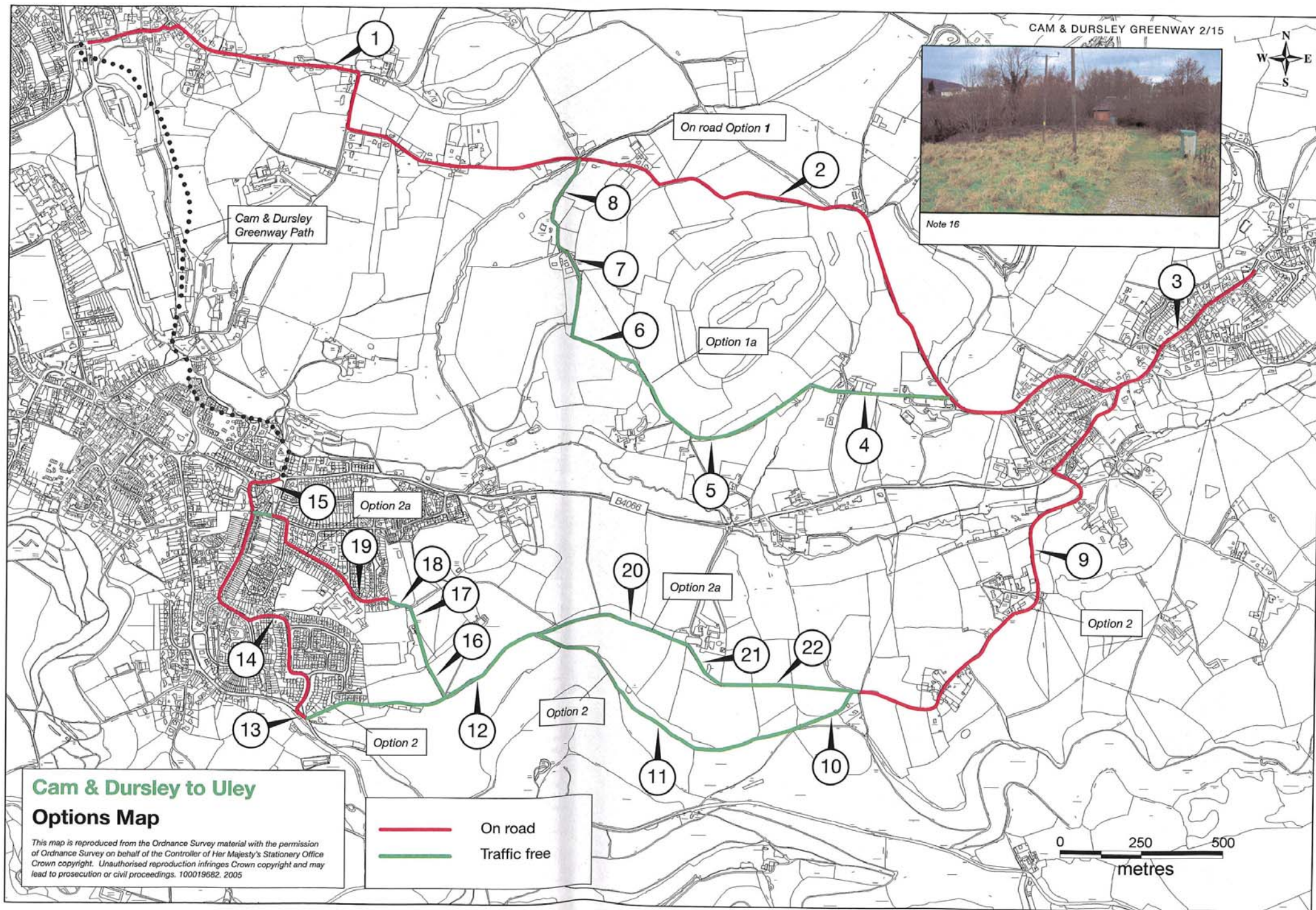


Note 15





Note 16

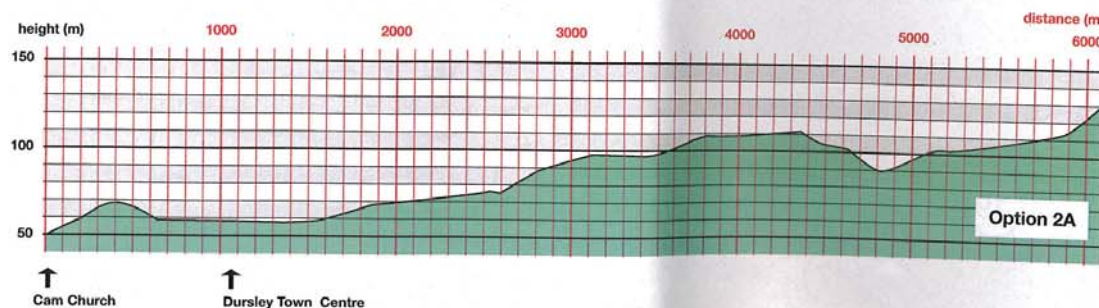
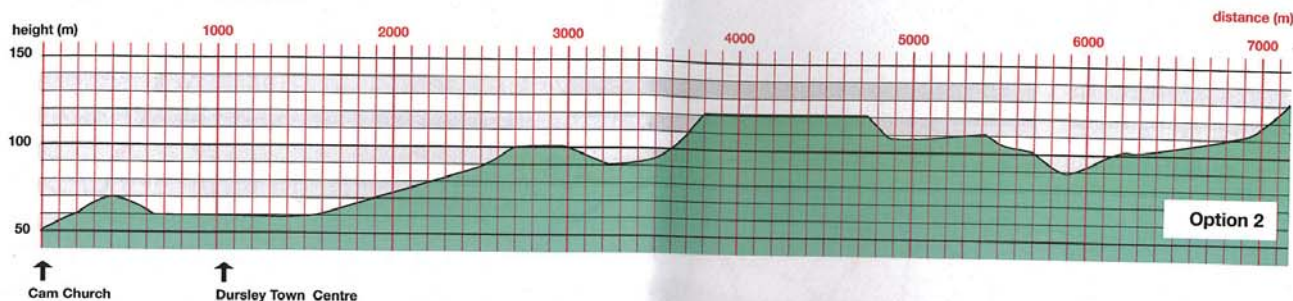
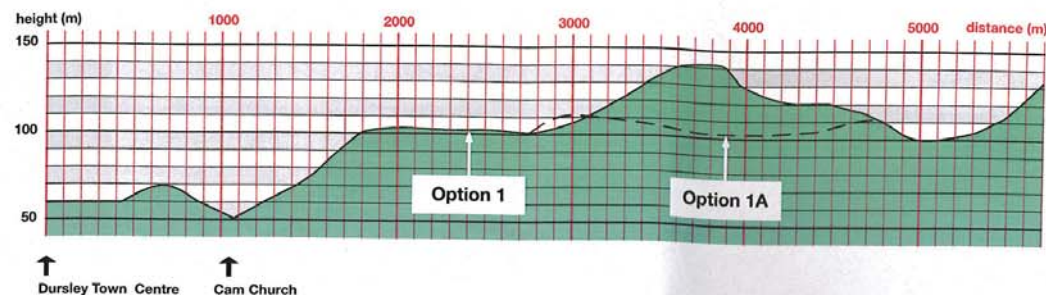




## Options for a cycle route between Cam, Dursley and Uley

The village of Uley lies at the foot of the Cotswold escarpment at the head of the Cam Valley. It is elevated above Cam by some 70 metres, and any approach from the Cam and Dursley settlements in the valley bottom inevitably involves an ascent. The task is therefore to identify a route which conforms as far as practicable with the NCN Guidelines recognising that a level route is not possible. The options considered in the matrix could meet NCN standards and there are a number of secondary considerations as outlined.

The profiles of the options are shown in the charts.



Option	Distance Dursley / Uley (traffic free)	Description	Pros	Cons
1	7.5km (1.5 km)	Uses quiet lanes north of A4066 requiring climb from either end – a long climb from Dursley	Existing lanes are quiet. Low cost. Good views.	Long climb from Cam at 1:12. Max gradient 1:8. Need to climb higher than destination at Uley.
1A	7.5 km (3 km)	As option 1 but diverts on bridleway to avoid unnecessary climb.	As option 1 but reduces maximum ascent and avoids steepest section.	Long climb from Cam. New construction on existing bridleway. Possible conflict where PROW passes through farmyard.
2	6 km (1.8 km)	Very quiet lane from Uley to join bridleway along edge of woods. Enters Dursley through Highfields.	Passes Uley sports field. Large traffic free element very attractive. Passes close to schools at Highfields.	High cost. Probable intrusion issues near housing. Steep sections. 'Urbanisation' of countryside issues.
2A	6 km (1.8 km)	As Option 2, but requires use of footpath through fields and new link through public open space.	As option 2. Avoids steepest climbs.	Serious intrusion issues at farm. Path across open fields most unlikely to be acceptable.

### Conclusion

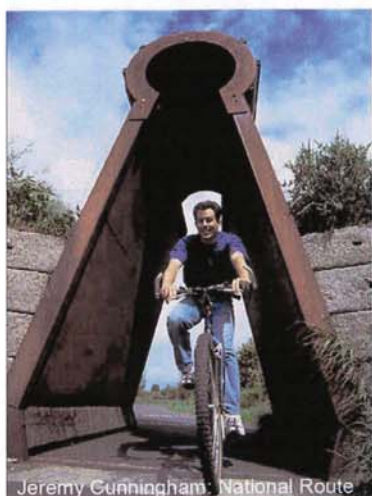
Option 1A is the preferred route of the four considered, but we recommend further investigation of a more direct link in the valley bottom would be worthwhile.



# Art & the Travelling Landscape: Distinctive Gateways

A selection of individually designed entrances and gateways along the National Cycle Network.

Sustrans works with artists to create unique and memorable access points to provide a sense of continuity and rhythm along selected routes.



Jeremy Cunningham: National Route



Jason Lane: National Route 66



Katy Hallett: National Route 3



Richard Farrington: National Route 2



Andrew Sabin: National Route 21



Anthony Holloway: National Route 71



Hamish Black: National Route 21



Lucy Casson National Route 57



Hamish Black: National Route 21



Mining Drag Bucket: National Route 1



Alan Evans: National Route 66



Dominic Clare



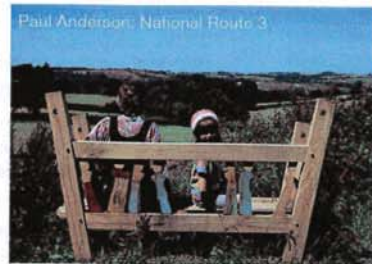
# Art & the Travelling Landscape: Special Benches

A selection of individually designed seating and resting areas along the National Cycle Network.

Sustrans works with artists and crafts people to create special benches, they are carefully oriented to take account of local materials, the gradient and views from the path and the environment of each site. Sustrans identifies sites at an early stage to integrate seating areas into the construction of all paths.



Steve Geliot: National Route 21



Paul Anderson: National Route 3



Alan Evans: National Route 66



Paul Anderson: National Route 3



Yumiko Aoyagi: National Route 57



Robert Kilvertington: National Route 3



Richard Stump: National Route 57



Walter Jack: National Route 41



Angus Ross: National Route 57



Leigh Roberts: National Route 57



Ryo Makio: National Route 57



Keith Rand: National Route 3



Katy Hallett: National Route 3



Will Glanfield: National Route 71



Tim Norris: National Route 44



John Grimshaw: National Route 71



Ben May: National Route 3



Jim Partridge: National Route 5



# Direction Signing on the National Cycle Network



## INFORMATION SHEET FF26

### Introduction

This information sheet has been prepared to provide assistance for people involved with signing sections of the Network and links to or away from it. In particular, it offers guidance on:

- the recommended standard of signs
- the signs required and where they should be located
- reviewing newly signed routes
- the monitoring and maintenance of signing.

### National Cycle Network and Signing

The National Cycle Network is a comprehensive network of safe and attractive places to cycle throughout the UK, comprising of both National and Regional Routes.

10,000 miles of National Route, together with numerous links have been completed. One third of these routes are traffic-free paths, while the rest follow quiet lanes or traffic-calmed roads. The National Cycle Network is co-ordinated by Sustrans, with the support of over 450 local authorities and other partners.

One of the key requirements in developing safe and attractive places to cycle is comprehensive direction signing that links paths, tracks, lanes and roads together to make up the Network.

The attractiveness and utility of a route to potential users will, in part, depend on the quality, coherence, consistency and frequency of the signs. Inadequate,

missing or misleading signage is the main concern expressed by users on the Network. One missing sign can result in cyclists ending up on very busy roads and could put them off cycling forever.

Visitors need to have confidence that they will not get lost, and should be able to follow the route – in either direction – without needing a map.

Clear signing towards and away from a network is as important as the signing along the network itself.

Signing also advertises the presence of cyclists to other road users and advises them that there is an alternative to using the car.

### Direction Signs

It is essential, at frequent locations along the route, that signs include key destinations and distances, and there should be consistency in the destinations selected. Ideally, two main destinations should be shown, showing locations close by (see figures 1 & 2). Typically, these will be the next village and town. Care may be needed to avoid erecting these in locations where they might encourage car drivers to follow the Network as a scenic route to their destination. In Wales, bilingual versions of signs should be used (see figure 3).

The common ingredients of all National and Regional cycle route signs are the bike symbol and route number. These are directional, with the route number patch behind the bicycle (as if it were a trailer) or immediately below. National Routes use a red route number patch, in contrast to a blue patch for Regional Routes. In the case of an overlap of a Regional and a National Route, both a red and a blue patch appear



Figure 1: Clear destinations at Stochd summit



Figure 2: Eastbourne seafont



Figure 3: Good example of a bilingual sign at Bedwas, South Wales



Figure 4: Dartford, showing local destinations on and away from the route

Sustrans is the UK's leading sustainable transport charity and works on practical projects to encourage people to walk, cycle and use public transport to benefit their health and the environment.

National Cycle Network Centre, 2 Cathedral Square, College Green,  
Bristol, BS1 5DD



It should be noted that the cycle symbol and the number patch are not recognised as tourism symbols and should not be used on brown signs.

## Link Signing

Links are an essential component of the National Cycle Network and extend its reach. Links of a particularly high standard are treated as an integral part of the National Route itself, giving access to a wide range of local destinations.

If the link is traffic free, the pedestrian symbol should be included on signing positioned behind the bicycle (and route number patch if appropriate) (see figures 6 & 11).

## Towards the National Cycle Network

Signing towards the National Cycle Network should show a local destination that can be safely and effectively reached using the National Cycle Network. It can also be of benefit to include the local route name as a destination itself (see figure 7 & 11). Where a local name does not exist, the National Cycle Network itself can be included as a destination. The bicycle symbol with the National or Regional Route number patch behind it should be included with the route number in brackets, in accordance with TSRGD 2002 (see figure 8). Where the link to a National Route coincides with a Regional Route, the Regional Route number in a blue patch should be included as well as the National Route number in brackets in a red patch (see figure 10).

## Away from the National Cycle Network

The signs should include useful local destinations such as community centres, schools, stations, shops or attractions (see figures 6 & 15). It is important that local knowledge is used to select destinations. The bicycle symbol should



Figure 5: Small 'x-height' on National Route 11, Coe Fen, Cambridge



Figure 6: Sign showing local destinations away from National Route 4, Goose Green



Figure 7: Sign towards the Exe Cycle Route and National Route 2, Exeter



Figure 8: Link sign to National Route 3

be used without a route number patch unless the link is also a regional route, in which case the relevant blue route number patch should be included. Confirmation signs could just use an abbreviated destination such as 'School' in order to reduce the sign size.

## Signs at the Junction of a Link and National Route

At junctions, it is particularly important that the public know which way to turn along the main route, or if travelling along the main route where to turn off for their destination. At these junctions finger posts are particularly appropriate, where destinations and distances should be given (see figure 12).

## Joint Signing

Where a National Route coincides with an existing signed cycle route, joint signing should be developed to cut down on sign clutter.

In the cases of the Trans Pennine Trail and the National Byway, the DfT agreed a set of joint signs incorporating the Trail logo. The inclusion of any logo still requires authorisation. In the case of joint signing with the National Byway, the signs should be blue (see figure 13).

## Locating Signs

Along all routes, care must be taken to ensure that satisfactory signing is provided in both directions. The frequency and location of signs should take account of the ability of cyclists to follow the route should any one sign go missing.

Care should be taken to locate all signs so that they are clearly visible and legible to approaching cyclists, who can then prepare to make the appropriate manoeuvre. Signs must be free from obstruction by foliage or parked vehicles. A balance must be struck between the need for continuous signing and the visual clutter that signing can cause. Within sensitive areas, such as rural settings or

environmental factor, as it hides the back of the sign, diminishes the visibility of the post and avoids breaking the skyline. Suitable backdrops might include a wall, building, fence, hedge, embankment or tree. Locations of signs should be agreed with the Highway Authority and/or landowner. The colour and material for the sign support should be appropriate for the location (see figure 15).

Signs should be designed and erected in a way that will not require constant maintenance. They should be fixed at the same height as general traffic signs in such a way that they cannot be easily rotated, hit by passing vehicles or vandalised, either by using square poles or inserting self-tapping screws through the bracket into the pole. These have been successfully used on the Network in many locations, such as in Northern Ireland, Derby and East Sussex (see figure 16).

Signs fixed to round posts should be secured with anti-rotational clips, so that they cannot be turned.

## On-road Routes

On-road direction signing should generally be provided at each junction where there is a change in direction, where cyclists using a route have to give way, or where there is possible ambiguity. In addition, advance direction signing should be provided on the approach to a junction where the National Route turns off the main route – this is particularly important where a right turn is involved (see figure 17).

A continuity sign just past a junction will both confirm the route to users and assist cyclists joining the route. It will not normally be necessary to sign the route at every side road it passes. On stretches of route with few junctions, additional continuity signs should be considered, approximately every 1.5km in rural areas and much more frequently in urban areas. In remote rural areas, it may be



Figure 12: Clear sign at junction of two routes, Portbury



Figure 13: Joint National Cycle Network and Byway sign, Dumfries



Figure 14: Continuity sign on the Celtic Trail, National Route 4, St. David's



Figure 15: Example of a junction sign, in a rural area, National Route 3. Note: it is always best to include distances as well as destinations





given to affixing signs on lamp columns, with the prior agreement of the Highway Authority, to ensure continuity. Self-adhesive versions of these signs have been successfully trialled in Leicester (see figure 19).

The opportunity should be taken to rationalise existing signing in the process, so as to minimise sign clutter. The most effective way to incorporate cycle signing into highway signs, as shown in TSRGD 2002 Diagrams 2105.1 & 2106.1.



Diag. 2105.1, TSRGD 2002

If the signing is being rationalised, it is possible to use the more attractive traditional finger post signs to show both cycle and road information (see figure 21). This type of signing is particularly suitable where a number of cycle routes converge.

Carriageway signs should normally be set back to give a clearance of at least 450mm from the edge of the carriageway. The best level to fix a sign in the verge for visibility is between 900 and 1500 mm, although care must be taken not to obstruct visibility splays with low level signs. Mounting a sign at this level also reduces its visual intrusion. However, where signs are erected on footways and transverse to them, the mounting height should allow a minimum of 2.1m clearance for pedestrians and 2.3m for a cycle track. Mounting heights should also have regard to possible vandalism/theft.

## Traffic-free Routes

For routes free from motor traffic, the signing of junctions and access points should follow similar principles as for on-road junctions. However, x-heights should not normally be greater than 30mm. Routes that form part of a network of paths, such as those through forests, demand careful attention to signing and will have a higher frequency of signs than a simple linear route, both to direct and reassure cyclists and other users. On a multi-use path where there is already a

high pedestrian use or where this is expected, the pedestrian logo should generally be included on the sign. Where a path is signed as shared use (diagrams 956 or 957<sup>(1)</sup>), the number patch can be added beneath the sign. If new posts are required, it is often better to use short, substantial square section timber posts with smaller signs fixed to them (see figure 22).

In sensitive areas, abbreviated signs may need to be used, in which case at the entry points to these areas, clear signs need to be erected indicating what symbol or logo the user should follow.

Signs should normally be erected on existing posts. In areas where there is difficulty in finding suitable locations for conventional signs, occasional use of more novel approaches should be considered. Throughout, the cycle symbol and route number should be retained. The same symbol and number should be included on information boards, bollards and elsewhere.

## Surface Markings

This method of signing is often overlooked, yet most cyclists and drivers spend much of their time focused on the surface in front of them.

On Bodmin Moor, where the Council is not permitted to erect sign poles, a system of signing the National Route using carriageway markings was authorised by the Department for Transport (see figure 23). A similar system is also in use in parts of London.

Carriageway markings may also be useful for guiding cyclists through complex junctions and residential streets in urban areas. More use should be made of Diag. 1057 without lane markings, but with occasional use of sign to Diag. 967 to let vehicle drivers know they are on a cycle route.

Surface markings can also reduce both sign clutter and vandalism, and have been successfully used in Swindon with full colour markings used on traffic free routes (see figure 24).



Figure 17: Sign in advance of junction, Shropshire



Figure 18: Continuity sign using existing pole, Cambridge



Figure 19: Example of self-adhesive continuity sign



Figure 20: Existing junction sign with added route direction

The London Cycling Design Standards<sup>(1)</sup>, Section 6.4, gives good advice on this subject.

## Putting Up Signs

Only the Highway Authority has powers to erect signs on the public highway, which it can do directly or through an approved contractor. Elsewhere, signs may be erected by another party with the permission of the landowner. Sustrans volunteer Rangers are working closely with local authorities to assist in the signing and maintenance of all Network routes.

When a new route is to be signed, a sufficient lead in time should be allowed to ensure that all parties have signed their section of route prior to the official opening, with particular reference to the timescale required by the Highway Authorities. To achieve this, the signing schedule should be drawn up at least three months before the opening date, to allow time for sign design, manufacture and erection.

## Signing Schedule

It is usual for the Highway Authority to compile a schedule of the signing required along a route. This will specify the position, orientation, mounting height, size and fixing method of each sign, incorporating diagrams, drawings and detailed notes as required. This will be used when the signs are erected and can be useful for subsequent checking of the signing along a route. A sample sign schedule is available from Sustrans.

The route will need to be signed in both directions. We recommend that, wherever possible, the full signing schedule be compiled with the route being travelled in both directions, as it is easy to omit or mislocate signs facing "the other way". Ideally this should be undertaken on a bicycle, but the use of a car may be necessary on longer rural routes.

## Review Of Signing

When a route is initially signed, it is vital to check that the signs have been erected as specified and any corrections made. We strongly recommend that the adequacy of the signing then be reviewed in both

directions with the assistance of the local Sustrans volunteer Rangers. This independent assessment by a cyclist may pick up aspects of the signing that should be improved. It is also useful to use someone who is not familiar with the route, who might identify gaps in the signing.

## Monitoring and Maintenance

It is essential to establish at the outset who is responsible for the maintenance of signing on each section of the route. Maintaining the continuity of signing is vital, and a route needs to be regularly monitored to identify missing or damaged signs. Local Authorities will seldom have the resources to undertake this. This work lends itself to enlisting the assistance of the Sustrans volunteer Rangers, with individuals or groups taking on responsibility for specific sections of route (see figure 25).

Sustrans has a fault reporting system for volunteer Rangers, which can cover route faults as well as missing signs. Rangers fill in the fault form, send them to the Local Authority and copy them to the local Sustrans manager. This provides a regular update on the state of the route and in particular the signing. Rangers are asked to put up temporary signs until the Highway Authority can replace the original or install a new sign (see figure 26).

A full schedule of all standard signs available to Sustrans volunteer Rangers together with the guidance issued to them can be obtained from the Sustrans Ranger Team at [rangers-uk@sustrans.org.uk](mailto:rangers-uk@sustrans.org.uk)

## Other Opportunities

### Mileposts and Waymarkers

As well as formal direction signs, there will be other opportunities for marking the route such as mileposts and information boards. One thousand cast iron mileposts, incorporating the route number, have been erected throughout the Network, which are maintained by local residents, schools and Sustrans volunteer Rangers.



Figure 21: Integrated signing in Cumbria



Figure 22: Confirmation sign fixed to a timber bollard, National Route 45



Figure 23: Road marking on National Route 3, Bodmin Moor



Figure 24: Preformed thermoplastic marking on traffic-free section of National Route 45, manufactured by Preformed Markings SW



Figure 25: Volunteer Ranger removing graffiti on the C2C, National Route 72



