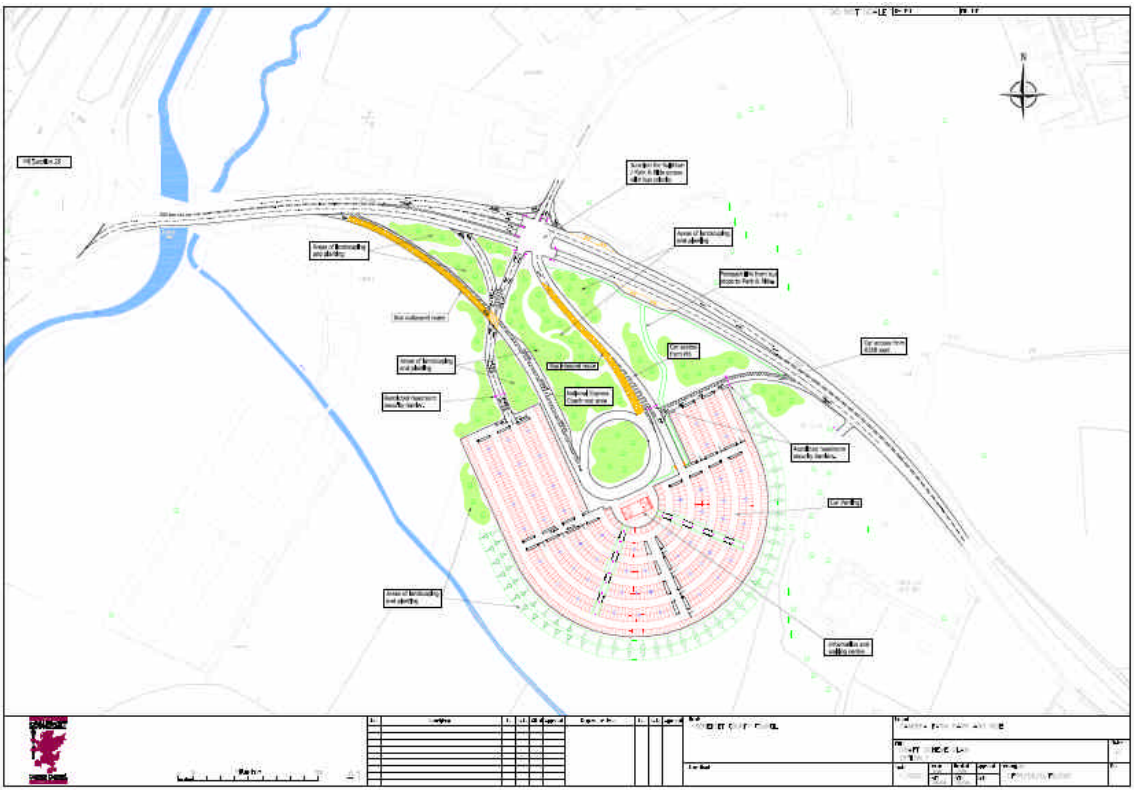
Professional Support Service

Somerset County Council

East Taunton Park & Ride

Final Report



January 2007

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1 Introduction

This report was prepared on behalf of Cycling England by Alex Sully of Transport Initiatives and checked by Adrian Lord of Arup. It follows a request from Somerset County Council (SCC) for assistance in developing a range of options to accommodate and, where possible, improve conditions for cyclists in the vicinity of the proposed Cambria Farm Park and Ride site. The author is a local resident and regularly uses the existing cycle track (as a cyclist) across the frontage of the proposed site on the southern side of the A358 west of Ruishton Lane and the section that passes underneath the M5.

This report identifies over thirty separate issues which it is considered should be addressed during the detailed design of the project. Some suggested options are tentative as no topographical information was available at the time of writing. To provide more detailed recommendations it will be necessary to consider the proposed ground levels for the site layout, proposed gradients for access roads and cycle/pedestrian facilities and the presence of cuttings or embankments.

Determining the viability of some of the options would also be improved by establishing the current levels of cyclists' (and pedestrians') movements in the area, especially movements out of Ruishton Lane at its junction with the A358.

Whilst the purpose of the report is primarily to identify issues relating to cycling, because there is a need to incorporate the existing off-carriageway shared unsegregated cycle track within the scheme, the needs of pedestrians have also been included where these have an impact on recommendations for cycle measures.

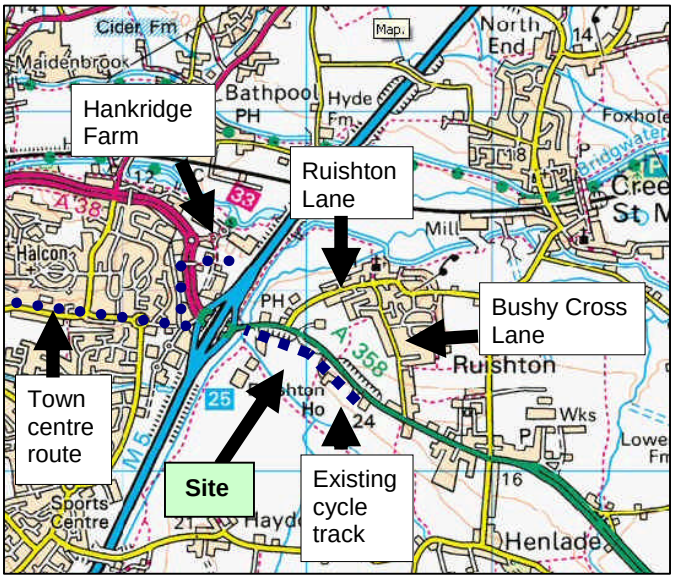
In coming to the recommendations contained within this document, regard has been had to the 'hierarchies of provision' i.e. cyclists' safety should first be addressed by tackling conditions within the carriageway by measures to reduce the volume and speed of other traffic before creating segregated facilities. In the case of the A358 it is considered that on-carriageway conditions are such that almost all cyclists would welcome segregation from motor traffic. It is believed that this is reflected in the fact that cyclists are rarely seen using the carriageway other than those whose infrequent journeys appear to be related to sporting or long-distance cycling.

In order to further encourage more cycling and retain those who already use this mode, the recommendations have also had regard to the five 'core principles' of providing for cyclists. In essence this means that measures provided for cyclists should be convenient, accessible, safe, comfortable and attractive. To achieve this is it is essential that detour, delay and disadvantage are designed out of all elements of the scheme.

Cycling in and around Taunton is currently at levels roughly four times the national average. The 'maturity' of its cycling culture can be gauged from the fact that on a cold January morning, the thirty or so cyclists seen within the period from 8.30 to 9.15 a.m. during the site visit were of all ages, with roughly half being women. The measures put forward in this report are, therefore, aimed at creating conditions that will encourage more cycling where possible rather than merely accommodating cyclists within the large number of often complex issues which arise from the proposed park and ride site.

1.1 Background

Somerset County Council is proposing to build a new park and ride site on the eastern outskirts of Taunton, just to the east of Junction 25 of the M5. This will be served off the A358 (Taunton to Ilminster and A303) which is the busiest 'county road' in Somerset. The area of land concerned lies to the south of the A358 between Cambria Farm and Ruishton Court Nursing Home. A number of accesses and exits to and from the site are proposed, including the creation of a new signalized junction to incorporate the existing junction of Ruishton Lane and the A358. Ruishton Lane is one of two direct access routes between the village of Ruishton and the A358. The other, Bushy Cross Lane, lies approximately 1,300m further to the west.



The cycle track on the southern side of the A358 passes under the Motorway by means of an off-carriageway cycle track around the south and western sides of the roundabout. It is used by residents of Ruishton and nearby Creech St Michael and Henlade to gain access to the cycle route beyond Junction 25 that leads ultimately to the centre of Taunton. This route is also used by cyclists making their way from Taunton to the industrial works to the north of the A358 at Henlade. Other options for cyclists (and pedestrians) include a route from Junction 25 to the nearby retail park at Hankridge Farm and beyond.

Junction of A358 and Ruishton Lane viewed from the north western side of the junction showing cycle track within the southern verge

Cyclists joining/leaving the cycle track alongside the A358 from Ruishton Lane currently do so via gaps in the central strip of the carriageway which self enforces a banned right turn into Ruishton Lane and a splitter island in the mouth of Ruishton Lane. Pedestrians also use this route.

2 Issues and options

The following items deal with the route of the existing cycle track from the east starting with its crossing of the car access from the A358 and working westwards to Junction 25. Because of its complexity, the issues relating to the junction with Ruishton Lane are dealt with separately. However, as a first step, the question of building bridges over each of the access/entry routes for cars and buses is addressed.

2.1 Cycle track on bridges over access/entry routes and southern peripheral route

It is not possible to fully evaluate this option without more topographical information. However it is clear that such an arrangement would create awkward climbs and descents and would make it difficult to return cyclists and pedestrians to road level for the link to Ruishton Lane. The ramp gradients would also need to conform to the recommendations of 'Inclusive Mobility' in order to achieve access for disabled users. Nevertheless, the suggestion is not without its merits since such a solution could be used to enforce the height restriction imposed on the car routes. This is not considered to be workable because of the need to maintain sufficient headroom for buses and service traffic and the need to locate the security barriers where they will achieve the greatest effect. Likewise, a peripheral route around the southern boundary would not link to the junction with Ruishton Lane.

Recommendation: It is recommended that these options are not pursued.

2.2 Cycle Track Crossing of Car Access from A358 East

To minimise delay to A358 traffic, cars leaving the main road need to be able to do so without reducing speed. This is likely to be to the detriment of the safety of cyclists (and pedestrians) wishing to cross the access road as a result of motorists concentrating on the act of leaving the main road and not looking out for users of the cycle track, especially those travelling westbound. Equally, it will not be so easy for westbound cyclists to look back over their shoulders to see cars approaching from the right unless they are brought to the crossing at right angles. A crossing designed and sited so that it both reduces speed within the site and ensures that cyclists and pedestrians cross at right angles will therefore be required. Adequate visibility splays should be provided at the crossing point. A priority crossing for cyclists may not be appropriate in view of the likely speeds motorists will be leaving the A358, however, this could be considered for all crossings on raised tables as part of the detailed design process.

Recommendations: Provide a cycle track crossing of the eastern car access road on a raised table and align the cycle track approaches so that they are at right angles to the access road. Evaluate the possibility of creating priority crossings during detailed design process.

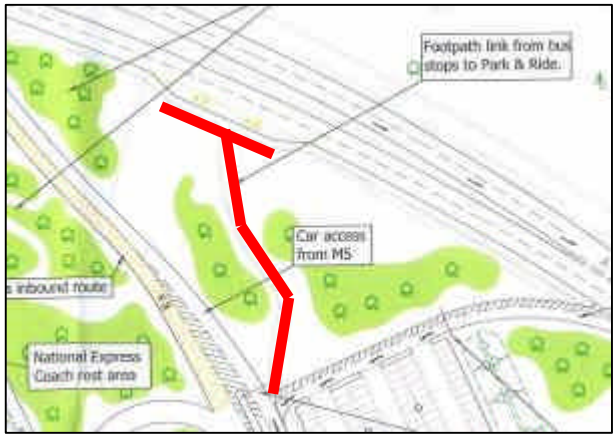
2.3 Cycle and Pedestrian Entry to Park and Ride site From the East

Cyclists from the east on the existing cycle track, for example coming from Henlade, wishing to ride to the site, park in the lockers/stands provided and use the buses to get into Taunton will need to be able to join the eastern access road without returning to the carriageway. As an alternative, this can be achieved from the raised table crossing recommended in 2.2 with cyclists using the access road from that point onwards. It appears from the Draft Scheme Plan that motorists will be able to overtake cyclists by using the hatched area of access road providing sufficient width is provided and speeds are kept low – recommended minimum width 3.75m kerb to kerb at 20 mph. A pedestrian link to the cycle track should also be created by means of a footpath between it and the Information and Waiting Centre.

Recommendation: Cycle and pedestrian access to the site from the cycle track to the east should be provided and speeds on the car access road maintained at or below 20 mph.

2.4 Cyclists Passing Behind Westbound A358 Bus Stop

Sufficient space should be provided for cyclists using the cycle track on the southern side of the A358 to pass behind passengers getting on/off/waiting for the bus. Consideration should also be given to creating the pedestrian link into the site as a shared-use route for cyclists as this may prove attractive to cyclists coming from the Ruishton Lane junction as a way of avoiding the use of the car access from A358 west (see later).



Recommendation: Widen cycle track to the rear of the westbound A358 bus stop and create shared-use cycle track in place of pedestrian only footpath link.

2.5 Cycle Crossing of Bus & Car Access from A358 West

Two traffic lanes are to be crossed and to align a crossing at right angles would create difficulties for the proposed cycle track crossing of the exit road to the west. It is, therefore, considered that the best solution would be to control the crossing of this entry road by traffic signals with a crossing point that aligns with that provided for the adjacent exit road.

This would also make conditions safer than the provision of an un-signalled crossing by removing the need for those wishing to cross g to decide whether traffic emerging from Ruishton lane is going to accelerate across the A358 to enter the site. If this solution is adopted then cyclists, and pedestrians, will be able to call a green signal to cross whenever the following phases are running:

1. A358 eastbound and westbound traffic running together and right turn for eastbound traffic turning right into site held at red (likely to be the most common circumstance);
2. Car exit traffic running (junction immediately to west of the crossing);

Although this should mean that cyclists and pedestrians will be able to call a green signal very quickly for most of the time, it is acknowledged that some pedestrians and cyclists may this frustrating, especially if there are long cycle times. In the absence of signal timings it is not possible to consider this issue in greater detail.

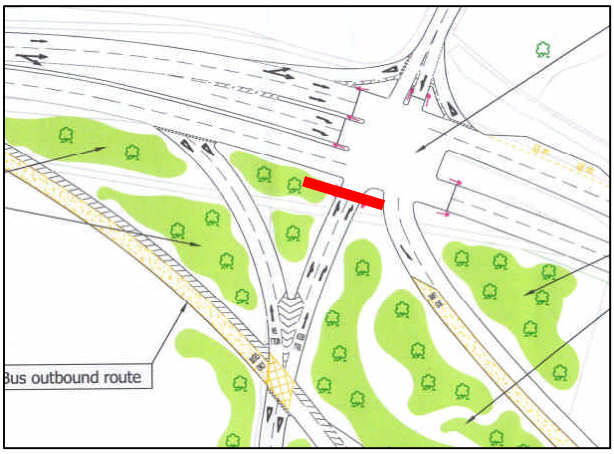
As an alternative, an un-signalled crossing point could be created some way back from the A358 further along the access road. To ensure low speeds on the access road the crossing would need to be sited on a speed table. However, this would also not sit well with traffic accelerating across the junction to enter the site nor would it be desirable on the return bus route. Such a solution would also have the knock-on effect of moving south the crossing of the exit slip road immediately to the west. As a consequence, this would probably place that crossing point within the stacking lanes provided for traffic queuing to leave the site and is not recommended.

Recommendation: Site the crossing point close to the main carriageway, align it with the crossing point immediately to the west and control with signals (see also 2.21 Cyclist detection).

2.6 Cycle Track Crossing Exit Road Opposite Ruishton Lane

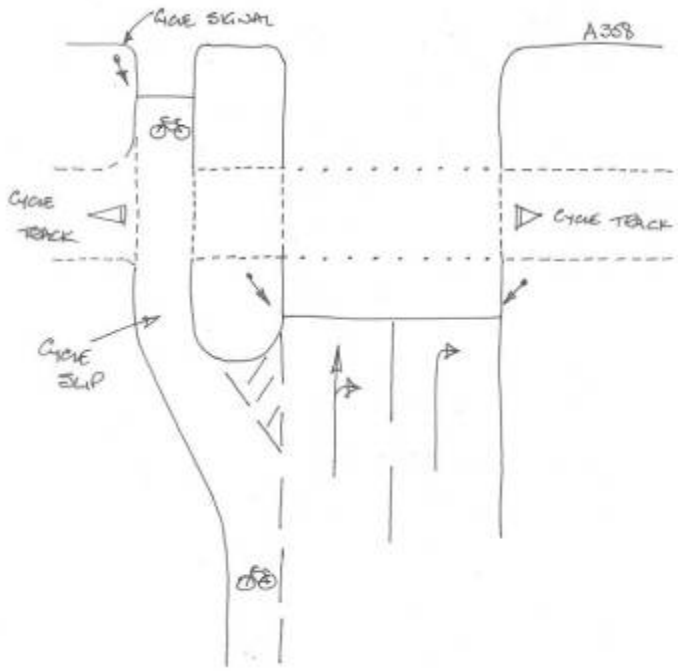
This item needs to address two issues: the first is the crossing of the exit road by both cyclists and pedestrians, the second the need for cyclists coming from Taunton to turn left to leave the cycle track and proceed to Ruishton Lane.

Since the cycle track is shared with pedestrians it clearly cannot simply discharge into the reservoir of an advanced stop line (ASL) to cross the exit road. The crossing of this road would, therefore, be better accomplished by a 'walk with' facility in advance of the stop line for emerging traffic. This takes advantage of the side road traffic being held by a red signal for a large proportion of the junction cycle time and requires those crossing to focus their attention only on the side road traffic. As an alternative, the crossing could be signalised in the same way as 2.5 above (not recommended as users of the cycle track are unlikely to observe the signals).



To accommodate the cyclist traffic that i) wishes to leave the body of the park and ride site or ii) turn left from the cycle track to travel towards Ruishton Lane across the A358 on the carriageway, it is suggested that this is best achieved by a separate signalled slip to the west of the nearside signal for emerging car traffic. This would create a left turn off of the cycle track. Cyclists who have been using the cycle parking within the site and who then wish to leave to join Ruishton Lane, should have a cycle lane provided to reach this separate signal (see indicative sketch below). Pedestrians and cyclists crossing the cycle slip should be required to give way to both cyclists and car traffic leaving the site.

Clearly this solution pulls back the stop line for emerging motorists but it is only marginally further back than would result from the inclusion of a full depth ASL (5m – see Diagram 1001.2 TSRDG). This has benefits in that it places cyclists ahead of other traffic where it can be seen and enables it to get ahead of other traffic in the same way as a normal advanced stop line. The resulting island should be wide enough to accommodate a cyclist waiting to cross the exit road (2.5m). Cyclists should be detected both by their presence at the stop line, having turned off the cycle track, and on the approach to the signal along the cycle lane.



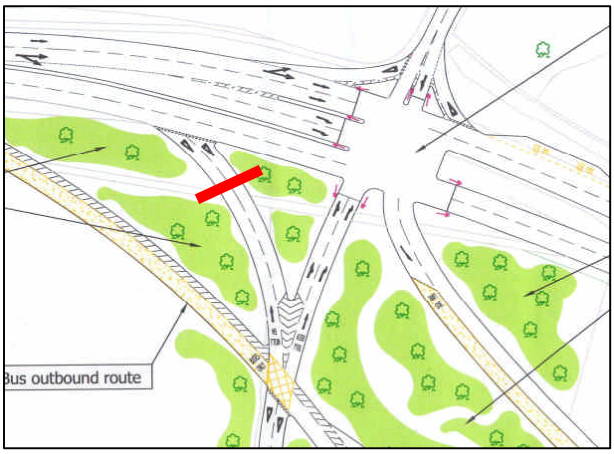
Indicative sketch only – not to scale

Note: crossing shown as cycle track giving way to exiting motorists and cyclists – this would minimise delay for those crossing.

Recommendation: Crossing layout is created in the form shown in above sketch.

2.7 Crossing of Give-Way Exit Road for Cars

The safe crossing of this road should be delivered by creating a ramped crossing at right angles to the exit road with adequate visibility splays provided in the same style as 2.2 above.



Recommendation: Create crossing at right angles to the exit road on raised table and investigate the possibility of providing a cycle priority crossing during the detailed design process.

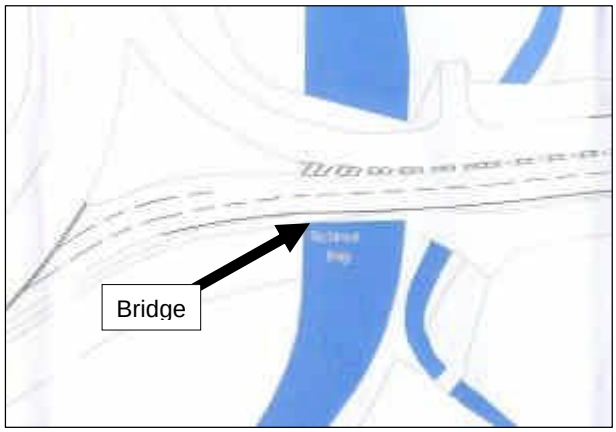
2.8 Crossing Of Bus Exit Road

Ideally this crossing would be achieved on a raised table in the same manner as for those above. This may not be desirable on a bus route and may not be justified if the bus frequency is one bus every ten minutes. The suitability of a raised crossing should therefore, be determined through consultation with bus operators. As above, the crossing should be formed at right angles to the road and have adequate visibility splays. If a surface crossing is provided it should be made conspicuous and bus drivers trained to slow down on the approach.

Recommendation: The crossing should be at right angles to the road and on a raised table.

2.9 Crossing of A358 Blackbrook Bridge

The existing bridge is narrow and only 1.8m wide between parapet and railings. To improve conditions for cyclists and pedestrians, this should be widened. Rather than interfere with the existing structure the possibility of creating a new bridge immediately alongside (c.f. the wooden bridge across the River Tone at Bathpool) should be explored. If necessary this should use lightweight abutment infill to minimise ground pressures.



View of bridge and cycle track looking west towards M5

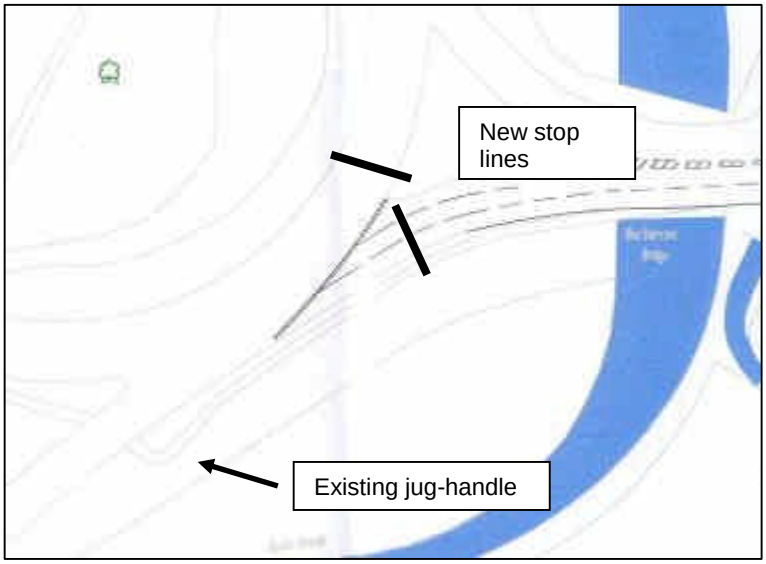
View of southern side of bridge looking east towards P&R site

Recommendation: Provide new bridge to carry cycle track alongside existing A358 Blackbrook Bridge (on southern side).

2.10 Cycle Track Crossing of South Bound On-Ramp of M5

The crossing of the on-ramp is difficult for cyclists due to the difficulty in deciding whether traffic coming around the roundabout at speed is going to join the on-ramp or continue on around the roundabout. This is made more difficult by the habit of many motorists not indicating which way they are intending to go. This fact was pointed out by a cyclist to the author, without prompting, during the course of his site visit. It should also be noted that the existing cycle track 'jug-handle' was introduced in response to a fatal accident involving a cyclist and a lorry.

The situation may be improved by the signalling of the circulating traffic on the roundabout and the westbound A358 traffic entering the roundabout. This may introduce gaps which will make the crossing easier. Without details of the signal phasing and timings it is not possible to comment. It is felt that the act of crossing could be made easier if the jug-handle were to be moved westwards up the ramp as far as practicable. This may necessitate the moving of some of the existing signs but would gain valuable decision making time for those about to cross, especially if motorists are accelerating around the roundabout rather than moving away from a standstill. This situation would be improved further if all of the signals could 'fall to red' when there is no traffic demand (admittedly a rare occurrence)



Looking towards the M5 southbound on-ramp and existing jug-handle

Looking back down the M5 southbound on-ramp towards existing jug-handle

Where is the lorry about to go? Moving the jug-handle further up the ramp can help to gain valuable decision making time for cyclists and pedestrians

Recommendation: Move crossing point further up the southbound M5 on-ramp and investigate signal timings to maximise the safety of cyclists and pedestrians crossing.

2.11 Creating a New Cycle Track Around the Central Island at J 25

This opportunity is created by the new stop lines for circulating and entry traffic (see 2.10 above). Although this solution may appear safer at first sight, since it would provide a route through the junction with every crossing achieved with signal control, this is unlikely to be attractive to cyclists as it will double the number of crossing points and hence, the delay incurred: two to get onto the central island, one to get off and another (existing) to cross the northbound off-ramp. This will inevitably increase delay and may well increase the likelihood of cyclists taking chances when they cross or staying on the carriageway and thereby reducing their own safety.

Note: regular users of the signalised crossing of the northbound off-ramp can already be seen to ignore the use of the push buttons to call for a green crossing signal. Many users (and this included the author until he was a witness to a recent accident resulting injury to a cyclist) prefer to base their decision to cross upon the presence of traffic on the off-ramp, the signal phase that is running and a judgement on the likelihood of the signals changing and being caught out by traffic moving off.

This solution would seek to replicate the existing conditions on the western (outer) side but this may not be practicable due to lack of available space and the presence of walls and other obstructions on the inside of the roundabout.

Existing cycle track on outer, south western side of roundabout – cyclists and pedestrians can pass either side of pillars (1.1m wide to left of pillars and 1.7 wide next to carriageway

Roundabout – inner pillars and barriers, note the restricted width behind the pillar

Control box and base of camera sitting on concrete plinth – what cannot be readily seen is the presence of a low retaining wall at the base of the pillars

Low retaining wall restricting available width

Recommendation: This solution is not pursued

2.12 Improvements to existing crossing of Northbound Off-ramp

It was disappointing that when the Highways Agency recently widened the off-ramp to provide an additional lane no improvements to the cycle track crossing other than the introduction of near-side signals and Puffin-style detection were introduced. The cycle track approach is narrow and the call buttons do not fall readily to hand. The continued presence of the 'Cyclists dismount' signs also shows a lack of understanding of how to cater for cyclists.

This cyclist has just chosen not to call a green signal to cross.

Cyclist going the other direction waiting for green signal before crossing

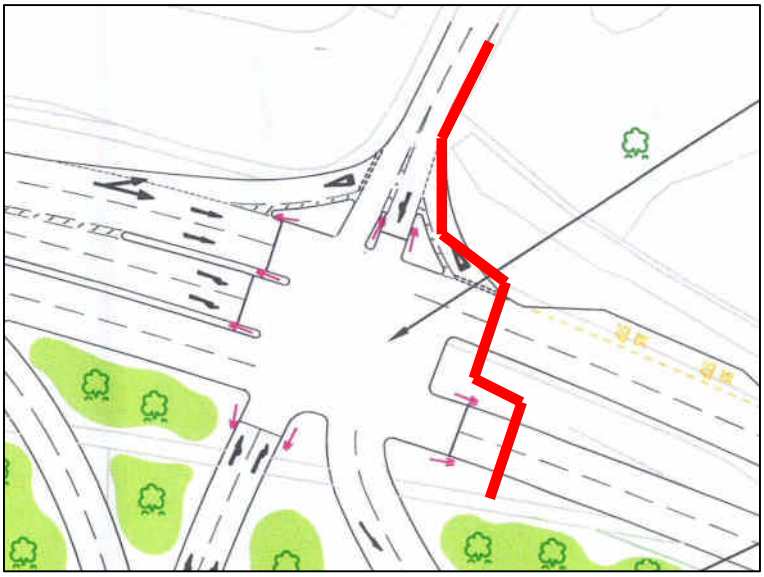
Recommendations: Re-align and widen the cycle track approach on the Taunton side and review the nature of the cycle route signs at the crossing point.

2.13 Improvements to Ruishton Lane Junction

A number of important cycle and pedestrian movements need to be accommodated at this point. These are dealt with as follows:

i. Controlled cycle and pedestrian crossing of A358

The presence of the park and ride site will attract both cyclists and pedestrians since it will provide a more regular, and possibly cheaper, bus service into Taunton. This will almost certainly increase pedestrian traffic on Ruishton Lane and possibly cycle traffic. No facilities for pedestrians to cross the A358 are shown on the draft scheme drawings.



It should be noted that the existing bus stop just to the east of the Blackbrook Tavern has been re-sited to the east of the Ruishton Lane Junction. It is suggested that the layout of the revised junction does not cater for pedestrians forced to walk from the pub to the new bus stop. In addition, within the current proposals there is a separate left-turn slip for traffic leaving Ruishton Lane. Whilst in principle it may be seen as desirable to

accommodate this manoeuvre to minimise the time it takes queuing traffic to emerge, it is suggested that the number of vehicles that do turn left are small in comparison with those who turn right (or will turn right or go straight ahead in future). As a result, this feature is does not appear to be warranted, especially as it will not function if three cars are waiting to emerge (a common state at peak periods even before the park and ride site attracts more traffic to this route). If, as is desirable, an Advanced Stop Line (ASL) is provided for cyclists leaving Ruishton lane (see later), this figure will drop to two.

In addition, if a crossing if it is provided in the suggested position shown as a red line on the above extract of the draft scheme drawing, the presence of the left slip will add to the difficulties faced by pedestrians needing to pass through this junction in order to get to it. However, it is not recommended that the need to cross the A358 is accommodated to the west of the Ruishton Jane junction to avoid this situation. This is because the additional crossing length, and the need for wider central refuges will create a considerable delay for those crossing, a longer detour for pedestrians wishing to get to the park and ride site from Ruishton Lane and possibly an adverse impact on overall junction capacity if it interferes with the car traffic leaving the park and ride site and heading west.

On balance, it is therefore considered that the best solution is for the left turn slip to be abandoned and for the provision of a signal controlled crossing that utilises the wide central margin and allows less confident or more vulnerable cyclists to cross with pedestrians. It should be noted that cyclists using this crossing who wish to enter the site to take advantage of the 'bike and ride' opportunity will probably want to cycle along the link from the bus stop on the southern side of the A358 as recommended in 2.4 above to avoid mixing with motor traffic (see also 2.32 ii D below).

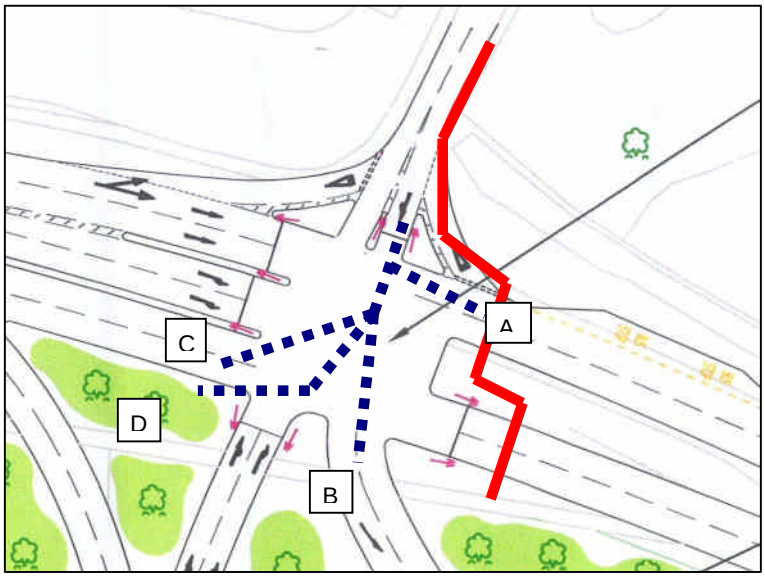
In addition, it will also be necessary to address the question of how cyclists and pedestrians heading south along Ruishton Lane get to the crossing point. To achieve this, it is recommended that Ruishton lane is widened to provide an unsegregated cycle track along its eastern side north. This should extend to a point at which cyclists heading north can return to the carriageway and pedestrians cross to join the footway on the western side without being blocked by queuing traffic. It will be necessary to take into account the need for visibility in both directions for those crossing/rejoin the carriageway at this point. This should not be blocked by queuing traffic to the south or the curve of the road and the hedge bank to the north.

This solution would also provide for pedestrians coming from the direction of the pub wishing to use the crossing.

Recommendation: reconsider the provision of the left turn slip from Ruishton Lane and provide a signal controlled crossing for both pedestrians and cyclists of the A358 immediately to the east of the junction. Create a cycle track on the eastern side of Ruishton Lane to provide access to this crossing.

ii. Cyclists on carriageway emerging from Ruishton Lane

It is to be expected that confident cyclists leaving Ruishton Lane will stay on the carriageway to cross the A358 in one go thanks to the opportunity to do so afforded by the signalled controlled exit. The routes taken by these cyclists will be: A) a left turn onto A358 – unlikely and requiring no special provision; B) into the park and ride site along the along the along the access road; c) right onto the A358; and D) across the A358 to gain access to the cycle track on the southern side to head east or west (see diagram below).

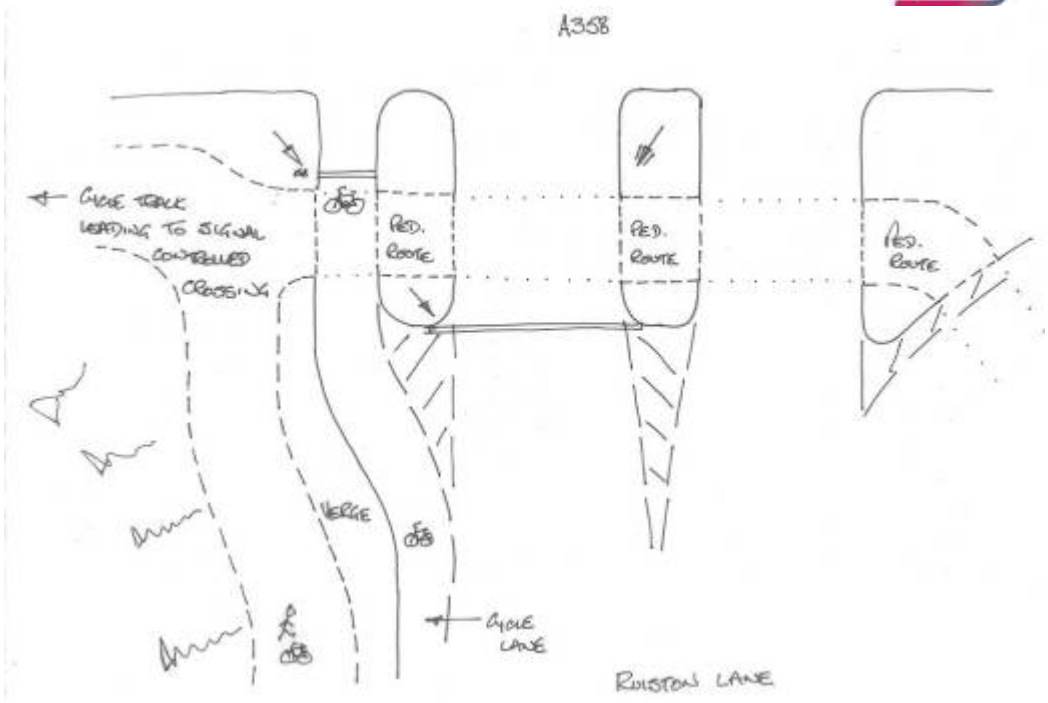


B. For cyclists wishing to gain access to enter the park and ride site via the bus and car entry road, this is best achieved by the provision of an ASL which allows cyclists to be ahead of (and therefore easily seen by) motor traffic taking the same route. For those wishing to join the cycle track to turn eastwards who do not choose to use the signalised shared use crossing, this can movement be accommodated by creating a suitable separate access with flush kerbs off the A358 so that cyclists do not have to mix with cyclists or pedestrians waiting to use the crossing created across the entry road.

C. It is not considered appropriate to provide any measures for right turning cyclists who chose to stay on the carriageway. The provision of a west-bound cycle lane would achieve little since, on its approach to the roundabout, it would have to be abandoned before the Blackbrook Bridge. This is largely because of lack of available carriageway space and, more importantly, the likelihood of conflict with motor traffic which takes up a position in the nearside lane to turn onto the Motorway at the roundabout. It is considered that creating high quality off-carriageway conditions is the best way to provide a solution to this issue.

D. Those wishing to join the cycle track to travel west should be catered for by the provision of a flush-kerbed access point to the west of the signalised exit road (this will requite special attention to the carriageway drainage to avoid ponding- note: a 6mm upstand to the kerb is not acceptable). All of these movements, especially the latter, will benefit from the provision of an ASL accompanied by the widening of Ruishton lane to create an approach cycle lane.

   Alternatively, the cycle track referred to above could also feed into a separately signalled advance position similar to that suggested in 2.6 above (see indicative sketch below). To be effective, this junction treatment would probably require the banning of the left turn out of Ruishton Lane for motor traffic. This would result in the need for this traffic to turn right and go around the roundabout before heading east (or go via routes to the east) but it is felt that the volumes concerned would not have an adverse impact on capacity at the roundabout.



Indicative sketch layout for separately signalled cycle exit from Ruishton Lane with banned left turn out

Recommendations: An advanced stop line should be provided for cyclists emerging from Ruishton Lane. Ruishton Lane should be widened to provide a lead-in cycle lane on the approach to the ASL. Alternatively a separately signalled advance cycle stop line be provided accompanied by a left turn ban (investigation of this solution is strongly recommended). Cycle access to the cycle track on the southern side of the A358 should be provided to allow cyclists emerging from Ruishton Lane on the carriageway to leave the carriageway.

2.14 Personal Safety Issues within the Park and Ride Site

The cycle track alongside the southern side of the A358 and the recommended cycle link into the site is likely to pass through areas of landscaping and possibly cuttings. The personal safety of pedestrians and cyclists should be ensured through adequate forward visibility and lighting etc.

Recommendation: Measures to ensure the personal safety of pedestrians should be introduced during the detailed design of the site layout.

2.15 Cyclists Illegally Entering the Park and Ride Site along the Bus Exit Road

This is not recommended but since there is a possibility that it could happen as it is an attractive route into the site, it is worthwhile considering whether contraflow cycling could be achieved safely. If not, it is essential that all of the other routes are made as attractive as possible.

Recommendation: Contraflow cycle access to the bus exit road be investigated.

2.16 Improvements to Ruishton Lane

The existing conditions within Ruishton Lane are already difficult for cyclists and pedestrians. This state of affairs begins at the junction of Bushy Cross Lane and Cheat's Road where motorists regularly ignore the right of way of traffic travelling between Bushy Cross Lane and Cheats Road. Cyclists also face difficulties as there is rarely enough room for two cars to pass over the 'built up' length and motorists often pass cyclists at speed rather than wait behind them to allow an oncoming car to pass. This situation is made worse when cars are parked in the lane. Unfortunately, conditions are likely to deteriorate as additional motor traffic is attracted to this road to gain access to the park and ride site. Except for short lengths of footway at each end of Ruishton Lane, pedestrians are forced to walk in the carriageway for its entire length.

Ruishton Lane looking east

It is acknowledged that there are difficulties in widening the lane at the village end because of roadside banks, steep vehicular accesses and an electricity sub station on the north western side. However, the same cannot be said along much of the south eastern side which has a low hedge bank between the carriageway and adjacent fields. There is nothing here to prevent its being used for a widening of the carriageway and the provision of a footway and a short length of shared-use cycle track (see 2.3 i above). This would create improved conditions for both cyclists and pedestrians alike. Where the many pinch points occur to the south west of the junction with Bushy Cross lane, this stretch would benefit from positive traffic calming with physical measures to bring speeds to or below 20mph, rather than the transverse markings recently applied to the carriageway.

Ruishton Lane looking east towards the junction with Bushy Cross Lane and Cheat's Road

Ruishton Lane looking west

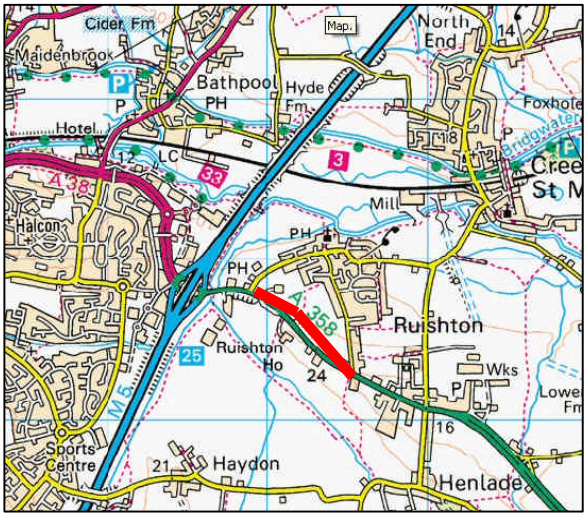
Recommendation: Ruishton Lane be widened over that length of its eastern side which is fronted by fields to both widen the carriageway and create a footway and cycle track. Physical traffic calming be introduced over the remainder to keep speeds at 20mph or below.

2.17 Cycle Use of Proposed Footway on Northern Side of A358

It is understood that this is proposed within one of the County Council's improvement programmes. This facility, combined with the use of Bushy Cross Lane, is unlikely to be a popular route to the Park and Ride site for the majority of the pedestrian trips that originate in Ruishton. This is because it represents a considerable detour for most potential users and an uphill gradient for approximately half the length of Bushy Cross Lane. However, if it is a firm proposal within another programme it would be worthwhile including it in the park and ride project and making it a shared use cycle track for the benefit of residents towards the southern end of Bushy Cross Lane.

This cycle track would then be a useful link to the recommended signalised crossing of the A358, and onwards to the existing cycle route into Taunton, as well as to the park and ride site, which avoids Ruishton Lane. It may also be of benefit to those who cycle from Taunton to the civil engineering works at Henlade as it would provide a safer crossing of the A358 than is currently available. It is suggested, therefore, that it would be best introduced as part of a package of measures rather than a later 'add-on'.

Recommendation: The proposed footway on the northern side of the A358 be built as a

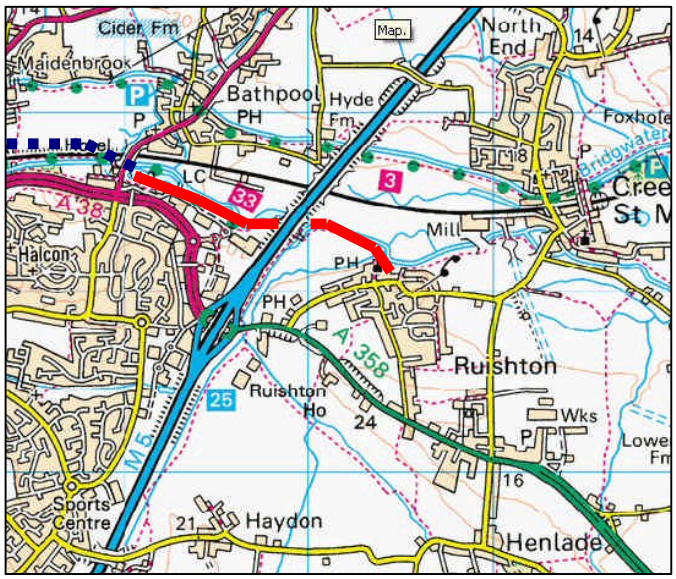


shared use cycle track as a part of the park and ride project.

2.18 Cycle Track from Ruishton to Hankridge (Via Drakes Close)

The unsurfaced public footpath that links Drakes Close with the Hankridge retail park creates an alternative route from Ruishton for pedestrians that takes them well away from the challenges of circumnavigating the Junction 25 roundabout. It also provides an potential onward link to the existing cycle route that connects the retail park with the Station Road area of Taunton via the existing cycle tracks alongside the river and canal. However, this route is only currently really attractive in dry weather.

If created as a formal cycle track, this link would provide improved accessibility for the residents of both Ruishton and Creech St Michael (both cyclists and pedestrians) to destinations such as the retail park, the railway station and schools in the northern part of the town. It could, therefore, draw a proportion of the existing pedestrian and cycle traffic away from the difficult conditions at Junction 25 and encourage increased walking and cycling and reduced car trips by opening up new opportunities for trips into town.



Recommendation: The priority afforded to the proposed cycle track between Ruishton and the Hankridge retail park within the County Council's scheme assessment process be increased to reflect its potential contribution to sustainable access to Taunton and its ability to draw vulnerable road users away from Junction 25.

2.19 Cycle Parking Within P&R Site

Local residents of Ruishton and Creech St Michael are likely to be attracted to the Park and ride facility as an alternative to using the existing local bus service. It would clearly be more sustainable if the trip to the site is made on foot or by bicycle rather than by private car. The forgoing recommendations are designed to encourage this. In order for those cycling to the site to leave their bicycles securely it will be necessary for suitable cycle parking to be provided. For those who chose to do this regularly, or for those longer distance travellers who drive to the site and then make a practice of cycling into

town and wish to keep a bike on site overnight, it is suggested that this parking need be met by the provision of lockers. These should be managed and maintained as part of the wider contract for management of the site.

For those cyclists who do this on an irregular basis, covered Sheffield stands should be provided in a position where they are the subject of constant natural surveillance, regular checks by management staff and covered by CCTV and suitable lighting.

Recommendation: Cycle parking in the form of lockers and covered Sheffield stands be provided: all cycle parking provision should allow for expansion of demand.

2.20 Monitoring of Cycle Flows

Off-carriageway cycle tracks lend themselves to the monitoring of use by cyclists by means of automatic cycle counters. The cost of these monitors is modest in the context of the park and ride project, especially as the computerised counting unit can be moved from site to site.

Recommendation: Suitable locations for cycle counters be established and an appropriate number of automatic cycle counters be purchased and installed as part of the park and ride project.

2.21 Cyclist Detection

Cyclists should be detected on the approaches to all signal control elements referred to above. Off-carriageway this should take the form of loop or microwave detectors (or similar) to provide a 'call' for the green signal so that the lights will have changed by the time cyclists arrive at the crossing point etc.

On-carriageway movements e.g. leaving the park and ride site to enter Ruishton Lane should have continuous detection to maintain an 'all red' to other traffic as necessary to allow cyclists time to clear the junction.

In all instances, signal timings should aim to minimise delay to cyclists.

2.22 Signs

Cycle route signs not only give directions to existing cyclists they also advertise to prospective ones the presence of alternative routes and alternative means of travel. A full signing programme should therefore be drawn up.

None of the recommendations set out above require the use of 'Cyclists dismount' signs. Any suggestion that they should be used that emerges during the detailed design and audit stages of the project should be seen as a failure to achieve a satisfactory solution to cyclists' needs. If such a suggestion emerges then the design should be reviewed to achieve a new one that properly meets cyclists' needs and obviates the needs for these signs.

Recommendation: A full cycle route signing programme (including sings which advertise the availability of cycle parking) be introduced as part of the park and ride project.

2.23 Widths of cycle tracks and general improvements

It would appear that the existing unsegregated cycle track alongside the A358 works adequately in terms of potential conflict between cyclists and pedestrians where there is sufficient room for cyclists to pass pedestrians. However, to encourage cycle use as much as possible, westwards from the junction with Ruishton Lane it should be at least 2.5m wide where there are grass verges on either side. Where there are structures/obstructions at the edge of the cycle track, for example over the proposed new bridge, this width should be increased to at least 3m. This width should also be employed where the alignment of the cycle track encourages pedestrians or cyclists to take the shortest route on bends, for example where it needs to adopt a serpentine alignment on the approaches to crossing points formed at right angles to the access and exit roads.

To the east of the Ruishton Lane junction the width of new-build cycle track should be a minimum of 2.5m. Since much of its length east of this junction is both narrow and in a poor state of repair this should be increased in width to at least 2m (preferably 2.5 where possible) and re-surfaced as part of the park and ride contract.

Signs and street lighting columns should be located outside of the surface of the cycle track

Recommendation: The width of all newly built cycle tracks should be a minimum of 2.5m where there are grass verges on either side. On the new bridge, at other points where there are obstructions or where there is a serpentine alignment the minimum width should be 3.0m. The existing cycle track to the east should be widened to a minimum of 2.0m and resurfaced as part of the park and ride contract.

2.24 Future options

Although the suggestion of a southern peripheral route is not recommended for inclusion within the project's considerations there is merit in looking at possibilities that may arise from the proposal to 'dual' the A358 on an alignment to the south of the park and ride site. To allow for this, it is considered that thought should be given to the possible provision of a cycle link, through or around the site to connect the A358 and, more importantly, Ruishton Lane with a new road to the south, especially if this leads to development of the land in between in the longer term.

Recommendation: The layout of the design of the park and ride site should not preclude the provision of a cycle track around its boundary or across the site to form a future link between Ruishton Lane and land to the south.