5th Apr 2017

Resolutions for the City Deal Assembly and Board from the Histon Road Local Liaison Forum

Histon Road/B1049 is an important main B-road connecting Cambridge with outlying towns and villages. It also has a junction with the A14/Northern Bypass, although the scope of the City Deal project ends to the south of the A14 junction. Histon Road is also part of a local community, with housing, shops and schools.

The following abbreviations are used throughout this document:

HRARA	Histon Road Area Residents' Association
BenRA	Benson Area Residents' Association
Camcycle	Cambridge Cycling Campaign
HHVCM	Histon Road / Huntingdon Road / Victoria Road / Castle Street / Mount Pleasant

1 Main Junctions: General Principles

Most collisions occur at junctions, and they are a major bottleneck for the movement of people walking, cycling, driving, or riding public transport. Junction redesign offers the greatest opportunity for improving safety and public transport efficiency. The Histon Road LLF workshops revealed a strong consensus that the prime focus should be on improving the major junctions. All have sufficient space within the highway boundaries to contain significant safety and priority improvements for people walking and cycling as well as smart measures to prioritise public transport, meeting project objectives 1, 2, 3, 4, 5 and 6 (objectives are listed in Appendix A).

The *'Do Everything'* and the Alternative Junction Designs created by the Histon Road Area Residents' Association, Benson Area Residents' Association and Camcycle (HRARA, BenRA and Camcycle designs) are outlined in Appendices B, C and D. They take into account the aims and objectives of the City Deal by prioritising walking, cycling, public transport and good landscape design in a manner that has attracted widespread support from the Histon Road LLF workshops.

We would be pleased to meet the relevant design engineers to discuss the junctions in more detail.

Resolution 1

The Histon Road LLF requests the City Deal Board to instruct officers to prioritise junction redesign and to develop the proposals of the *'Do Everything'* and HRARA, BenRA and Camcycle Alternative Junction Designs.

2 Junction: Histon Road / Huntingdon Road / Victoria Road / Castle Street / Mount Pleasant (HHVCM)

Although treated as a three way junction in the *'Do Maximum'* proposal by the City Deal, it is part of a much larger 5-way junction including Castle Street and Mount Pleasant. Existing conditions at this junction are unsatisfactory for all users including buses. The poor coordination of the traffic signals causes major back-ups and is the main contributor

to peak hour congestion along Histon Road. There are neither safe cycle lanes nor safe provision for cyclists to cross the vehicular traffic flow. There is inadequate provision for pedestrians to cross the streets or even to walk along some pavements.

The *'Do Everything'* proposal for a well coordinated 5 way HHVCM junction, as shown in Appendix B, has been developed as suggested by the City Deal Board as an alternative to both the current situation and the *'Do Maximum'* proposal. It provides both safe vehicular flows and separated safe pedestrian and cycling paths, with pedestrian and cycle crossings, coordinated with vehicular traffic flow, satisfying project objectives 1, 2, 3, 4 and 6.

In addition turning restrictions are optional but are not an essential feature. At the Histon Road LLF workshops there was strong support for the *'Do Everything'* scheme.

Thus this proposal eases one of the most severe bottlenecks in North Cambridge, improving safety and the flow of public transport buses (objectives 1, 3, 4 and 6). It does not necessarily include turning restrictions that would increase traffic congestion elsewhere but allows for their introduction if proven necessary (see Resolution 5), fulfilling objectives 4 and 7.

It is important to note that none of the proposed schemes includes any bus lanes within the junction. Thus the design of this 5-way junction is independent of any debate about bus lanes.

We would be pleased to meet the relevant design engineers to discuss *'Do Everything'* in more detail.

Resolution 2

The Histon Road LLF requests the City Deal Board to expand the scope of the work on Victoria Road junction to encompass the 5-way junction of Histon Road, Victoria Road, Huntingdon Road, Castle Street and Mount Pleasant along with a fully-integrated plan for its redesign, eventual reconstruction, and efficient management (e.g. signal programming). We request the City Deal Board to instruct the officers to develop the *'Do Everything'* design, as the alternative option to the *'Do Maximum'* proposal requested by the City Deal Board on the 9th of June 2016.

3 Junction: Gilbert Road / Histon Road

The Gilbert Road/Warwick Road/Histon Road Junction is important for access to Mayfield Primary School and Chesterton Community College. Any design should include trees, verges and incorporate segregation of pedestrians and cyclists from motor traffic (objectives 2, 5 and 7). The HRARA, BenRA and Camcycle design (see Appendix C) achieves these aims.

We would be pleased to meet the relevant design engineers to discuss Gilbert Road junction in more detail.

Resolution 3

The Histon Road LLF requests the City Deal Board to instruct the officers to take forward the HRARA, BenRA and Camcycle design (Appendix C) to the next stage because, in addition to achieving the objectives of the City Deal, it addresses safety for all people, particularly schoolchildren, unlike the *'Do Maximum'* proposal.

4 Junction: Darwin Green Spine Road / King's Hedges Road / Histon Road

An integrated design for the Northern section of Histon Road is needed for the area that contains the two junctions of the Darwin Green Spine Road and the King's Hedges Road, as shown in the HRARA, BenRA and Camcycle design (Appendix D) that includes a new bus-only roadway link direct from King's Hedges Road Junction to Darwin Green as discussed at the City Deal Board meeting on 9 June 2016. This should be considered further as it will relieve bus pressure on Histon Road (meets all objectives).

The Western Orbital between Madingley Park & Ride, Northwest Cambridge, Darwin Green and the Science Park has secured S106 agreements. The connection to this approved link will be assessed further (reference: City Deal Executive Board 8th December 2016). As the Western Orbital schemes are in Tranche 2 it would be financially prudent to pause the Histon Road bus, cycling and pedestrian improvements to Histon Road north of Gilbert Road until Tranche 2 to allow the development of a scheme for the Western Orbital and northern section of Histon Road.

We would be pleased to meet the relevant design engineers to discuss both King's Hedges Road and Darwin Green spine road junctions in more detail.

Resolution 4

The Histon Road LLF requests the City Deal Board to consider adopting a comprehensive scheme for the junctions of Histon Road with the Darwin Green spine road and King's Hedges Road in coordination with the Western Orbital, with traffic signal priority for public transport. We request the board to consider the HRARA, BenRA and Camcycle design shown in Appendix D.

The Histon Road LLF understands that the final design of these junctions may not precisely match that of Appendix D, but we request the City Deal Board to ensure that the design taken forward includes public transport signal priority, and safe and convenient walking and cycling provision in the style shown in Appendix D: having landscaping with trees and verges to protect people walking and cycling from motor vehicles, and utilising junction designs that are straightforward and respectful to people walking and cycling (unlike the present day conditions).

5 Displaced Traffic and "Rat-Running"

The 3-way Histon/Huntingdon/Victoria Road junction shown in the proposed *'Do Maximum'* scheme contains four major turning restrictions that would apply at all times of day and night; ie. from Histon Road to Victoria Road, from Victoria Road to Histon Road, from Castle Street to Victoria Road, and from Huntingdon Road towards Victoria Road.

Turning restrictions will lead to increased congestion elsewhere in the City as a result of vehicles forced to take more circuitous routes (e.g. on Castle St/Northampton St/Chesterton Rd; Gilbert Rd/Stretten Avenue; Akeman St/Stretten Avenue). Additionally, there is an existing problem of "rat running" through residential side roads off Histon Road where additional motor traffic is inappropriate (eg. Canterbury/Benson St, Windsor/Oxford Rd, Roseford Rd/St Albans Rd, Roseford Rd/Perse Way). This would worsen with restrictions on traffic flow at the junction(s).

The Histon Road LLF workshops were strongly against turning restrictions unless it can be demonstrated that there are major benefits, such as reduced congestion and significant savings in bus journey times. If deployed, the turning restrictions should be limited to peak hours. Applying turning restrictions away from peak hours is unnecessary and creates problems rather than alleviating them, since there are no delays nor congestion except in peak hours (Objective 7). Experimental traffic regulation orders offer a relatively easy and low-cost mechanism for testing these ideas, and physical changes can be as simple as signage.

Resolution 5

The Histon Road LLF requests the City Deal Board to put forward a design for the 5-way HHVCM junction that does not contain permanent turning restrictions, but instead is flexible enough to allow time-limited or experimental measures (e.g. experimental traffic regulation orders and signs) that can easily be reversed as shown in the *'Do Everything'* proposal. We request the City Deal Board to include measures to monitor and mitigate "rat running" on affected residential streets, e.g. Canterbury/Benson St, Windsor/Oxford Rd, Roseford Rd/St Albans Rd, Roseford Rd/Perse Way and Stretten Avenue.

6 Public Transport and Bus Lanes

The Histon Road LLF supports the City Deal Transport vision of making it easier to travel into, out of and around Cambridge and South Cambridgeshire by public transport, cycle and on foot. We question whether provision of dedicated bus lanes in either direction along Histon Road is an effective way of achieving this. Even the *'Do Maximum'* scheme proposes a bus lane for the incoming direction only. Since much of Histon Road is narrow, a bus lane would involve compulsory purchase of land from private gardens and removal of trees; both of these possibilities were regarded as unacceptable at the Histon Road LLF workshops. A bus lane would have an adverse impact on the neighbourhood, contrary to objective 7.

A clear view emerged from the Histon Road LLF workshops that the disadvantages of the proposed bus lane far outweigh any advantages it may have. For example, traffic modelling as reported in the interim options report shows that savings in bus times would be a maximum of only 1 to 4 minutes during the morning peak; outbound journey times would be increased during the evening peak. Equivalent or even greater savings at both peak times would be expected if the much less costly option of smart onboard ticketing were to replace the majority of cash payments. Some reduction in number of bus stops would also speed up journeys. Such alternative measures were strongly favoured in the Histon Road LLF workshops rather than expensive bus lanes involving irreversible major engineering works of doubtful benefit. (Objectives 1, 2, 6 and 7).

Bus priority measures must include properly built bus stops (to allow step-free boarding and multi-door buses) and safe crossings for people to access them. Re-routing of buses should also be considered as part of an integrated and coordinated public transport network planning effort.

See Appendix E for more details.

Resolution 6

The Histon Road LLF requests the City Deal Board to relinquish the proposal for destructive carriageway expansion to create a bus lane along Histon Road and instead to explore other solutions to public transport delays, such as onboard smart ticketing and multi-door buses. Any proposal for public transport priority taken forward must also include safe and usable provisions for people walking and cycling along and across Histon Road.

7 Compulsory Purchase Orders

A strong view emerged from the Histon Road LLF workshops that compulsory purchase of gardens was unacceptable, and that the requirement for safe cycling and walking provision was crucial and yet incompatible with a bus lane within the existing highway boundaries.

Resolution 7

The Histon Road LLF requests the City Deal Board not to use compulsory purchase orders to acquire gardens.

8 Cycle Lanes and Footways

A key objective of the Histon Road scheme is to make provision for safer and more convenient routes for cycling and walking, segregated from general traffic where practical and possible (Objectives 2 and 5).

Histon Road is a heavily travelled route with over 250 people per hour cycling into the city at peak times in the morning. Increased safety is a priority. Any measures taken must be attractive both to existing and new cyclists so that people choose to use the protected lanes, which should take account of larger-sized cycles (including box cycles and mobility scooters) and which allow persons of all ages and abilities safely to use these facilities. It is a shortcoming of the City Deal's proposed *'Do Maximum'* scheme that it contains designs that require people cycling to place themselves in dangerous positions adjacent to large and heavy motor vehicles.

Resolution 8

The Histon Road LLF requests the City Deal Board to incorporate protected provision for both walking and cycling into all of their designs for road segments and junctions. Such protection can be provided by separation in space (e.g. by physical separation such as trees within a verge), time (e.g. traffic signal phasing that prevents conflicting movements while remaining respectful to people walking and cycling), or priority (e.g. Copenhagen crossings). At minor road junctions, cycle lanes and footways should be continuous and have priority. The Histon Road LLF understands that in many cases the space within the highway boundary is too constrained to produce ideal designs and therefore trade-offs must be made. Some examples of trade-offs are: tarmac vs landscaping and on-street parking vs safer cycle lanes.

9 Parking between Rackham Close and Victoria Road Junction

The Histon Road LLF workshops were concerned about the effect of removing all parking between Rackham Close and the HHVCM junction on businesses and those who are dependent on carers, particularly given the doubts about alternative provision. There was also concern about the safety hazards that parked cars present to people cycling along Histon Road and people crossing the street (Objective 7).

The local survey by WSP/Parsons Brinckerhoff of alternative parking near Histon Road, quoted in support of the *'Do Maximum'* scheme, does not accord with knowledge of local residents. See Appendix F for details of our local survey of existing parking provision on Histon Road.

A current parking survey is needed to find out: the amount of parking required by Histon Road residents and businesses; at what times of day and night throughout the week; how much of this needs to be on Histon Road for access reasons (eg. disabled, carers, deliveries); how much alternative parking, not on the carriageway of Histon Road itself, is available nearby at the required locations and times.

Histon Road residents are also concerned that the removal of parking will result in an increase in noise and vibration, and loss of air quality (Objective 5).

Resolution 9

The Histon Road LLF does not support removal of parking on Histon Road southwest between Rackham Close and the HHVCM junction, without the guarantee of suitable alternative parking elsewhere. The Histon Road LLF therefore requests the City Deal Board, before making any decisions about parking:

(a) to instruct officers to carry out a current parking survey to discover the information listed in the preamble above.

(b) to commission an environmental report on the likely effects that removal of parking will have in terms of noise, vibration and air quality for residents on the west side of Histon Road.

(c) to support the introduction of extended parking controls throughout the city.

10 Trees Under Preservation Orders and the Rows of Trees, Hedges and Grass Verges

The streetscape with trees provides a sense of place, aesthetic interest, better air, better drainage, and lower flood risk. Mature trees take years to replace if destroyed. They have considerable amenity value throughout the seasons. There is room for cycling and walking provision without the need to remove trees or acquire gardens if the controversial bus lanes of dubious value are omitted (Objectives 5 and 7).

Resolution 10

The Histon Road LLF requests the City Deal Board to preserve existing roadside trees, particularly trees with preservation orders, hedges, grass verges and gardens on Histon Road and to avoid irrevocable loss of environmental amenities. Any tree or hedge along Histon Road that has to be removed for any reason must be replaced with a mature tree or hedge.

11 Traffic Reduction Measures

The Histon Road LLF supports the traffic reduction measures already under consideration, e.g. workplace parking levy, extended parking controls across the city and added Park & Ride capacity. We would encourage an even greater weighting of attention on overall traffic reduction rather than hard engineering solutions.

Congestion on Histon Road and journey times for buses would be considerably reduced, and bus patronage thereby increased (objective 6), if there were fewer cars using the road. Effective measures to achieve this need to be based on knowledge of the starting point and final destination of car users.

Increased use of public transport is not simply a matter of reduced journey times for buses on Histon Road, even if that could be achieved. Passengers have to be able to get to bus stops by walking or cycling, or by driving to Park & Ride facilities, and the onward connections to their destination have to be readily available and quick. All bus services need to be frequent and usable. Bus services must operate during the evenings.

Resolution 11

The Histon Road LLF requests the City Deal Board to rebalance its approach in favour of proposed traffic reduction measures that will produce great benefits for walking, cycling and public transport without controversial carriageway expansion that will have a negative impact on the environment and character of the locality.

We request the City Deal Board to work in partnership with the County Council to promote traffic reduction along Histon Road. This could include:

(a) instructing the necessary officers to determine the origin and destination of existing car users travelling on Histon Road;

(b) prioritising the identification of a suitable Park & Ride site some distance away from the Histon Road/A14 junction (and also possibly another near the Girton interchange) to relieve pressure on Histon Road, and also allocating funds for purchase and construction of the facilities;

(c) supporting the proposal from Oakington Parish Council on the consultation on Rural Transport Hubs dated December 13th, 2016, regarding a bus hub location where the guided busway intersects with Station Road in Oakington;

(d) placing greater emphasis on broader schemes to reduce incoming traffic, e.g. workplace parking levy, extended parking controls on residential streets, encouraging schools and employers to provide transport from pickup points, etc.

12 Continuity Across the A14 Junction

The Histon Road scheme currently ends with its northern boundary just south of the King's Hedges Road junction. It is an advantage to all modes of transport for the City Deal scheme to join up with existing provisions at the A14 roundabout.

Resolution 12

The Histon Road LLF requests the City Deal Board to expand the scope of the project further north along the B1049 as far as the A14 roundabout to ensure continuous provision for all forms of transport.

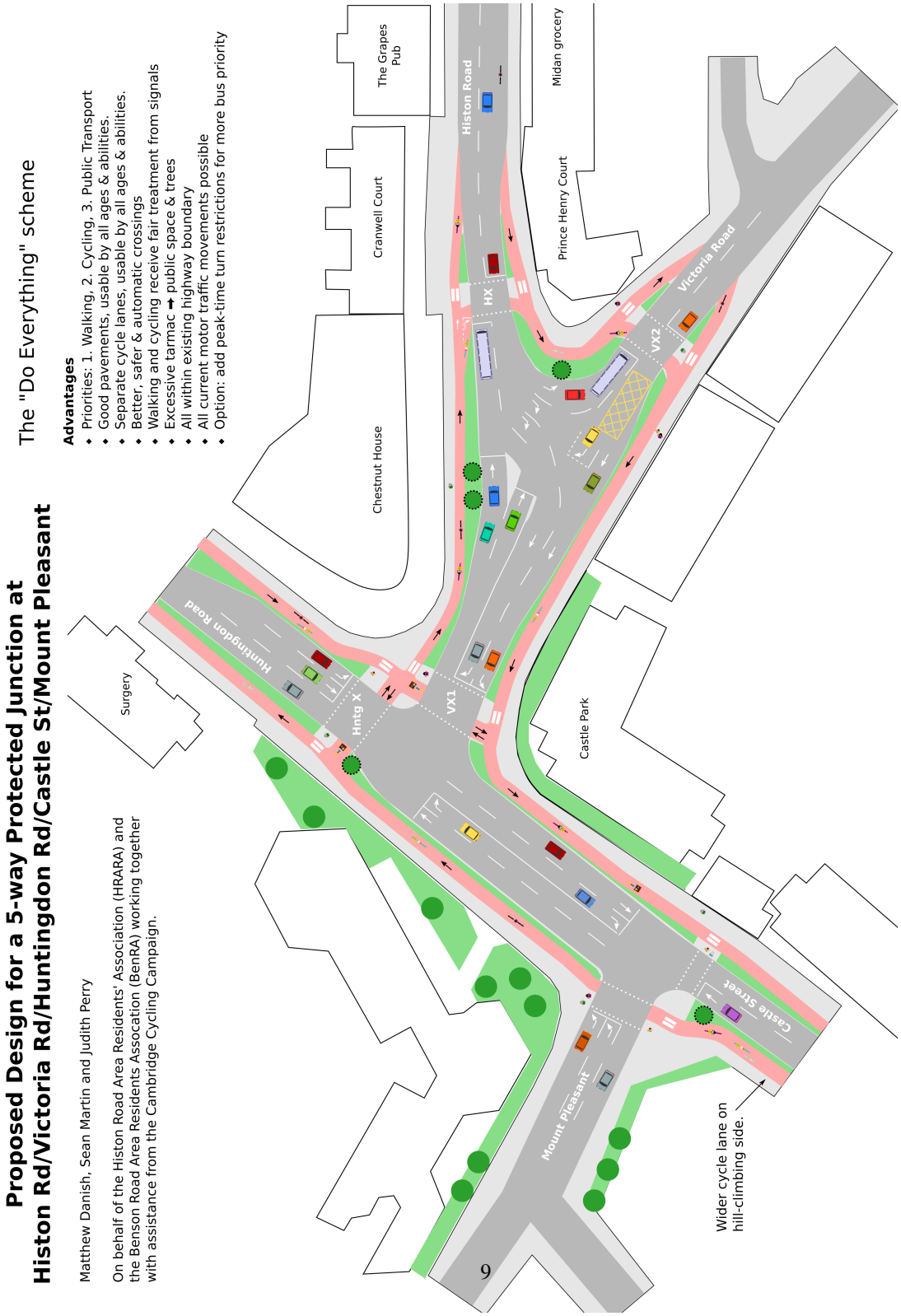
Appendices

A Project Objectives

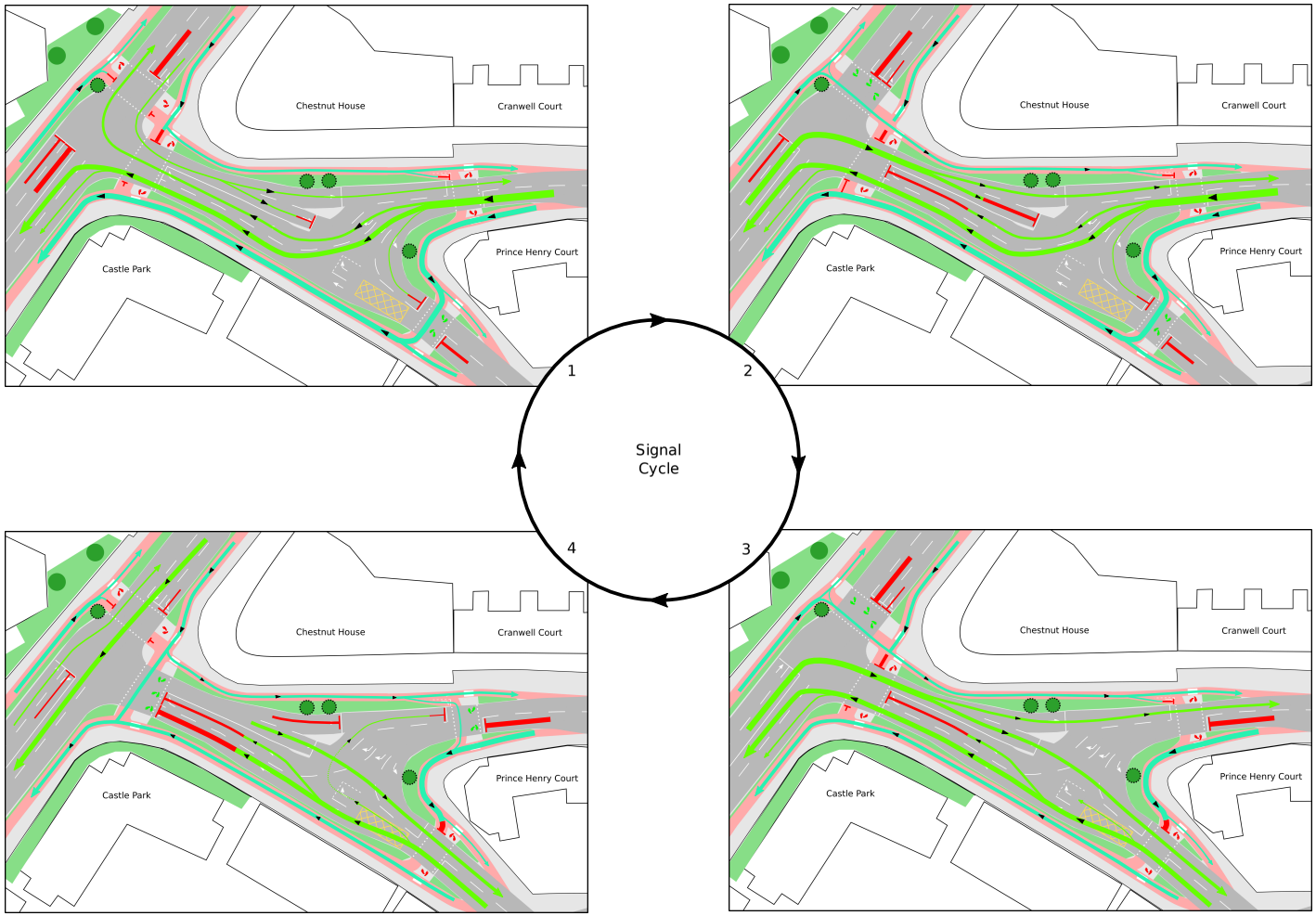
As provided by WSP/Parsons Brinckerhoff, tabled at the Histon Road LLF Resolutions Workshop on the 9th January 2017.

1. To provide comprehensive priority for buses in both directions along Histon Road where practicable (We take this to mean reducing journey time and increasing reliability and use of public transport);
2. To make provision for cyclists along Histon Road, which is segregated from buses and general traffic wherever practicable;
3. To enable additional capacity for sustainable trips to employment/education sites;
4. To generate options capable of maintaining traffic levels at today's levels in Cambridge;
5. To consider the potential for enhancing the environment, streetscape and air quality in this corridor;
6. To enable an increase in bus patronage and new services;
7. To assess the impacts on existing residents and highway capacity for each option.

B Junction: Histon Road / Huntingdon Road / Victoria Road / Castle Street / Mount Pleasant (HHVCM)



Sample coordinated 2-junction signal programming cycle for morning peak-time



Width of line shows approximate morning peak flow of motor vehicles and cycles.

‘Do Everything’ *at the HHVCM Junction*

Whatever happens to the City Deal in the wider context this junction will remain vital to control traffic flow into and out of Cambridge along Histon Road, which is an important B road connecting Cambridge with outlying villages. It is also the centre of a local community with shops and a school serving that community.

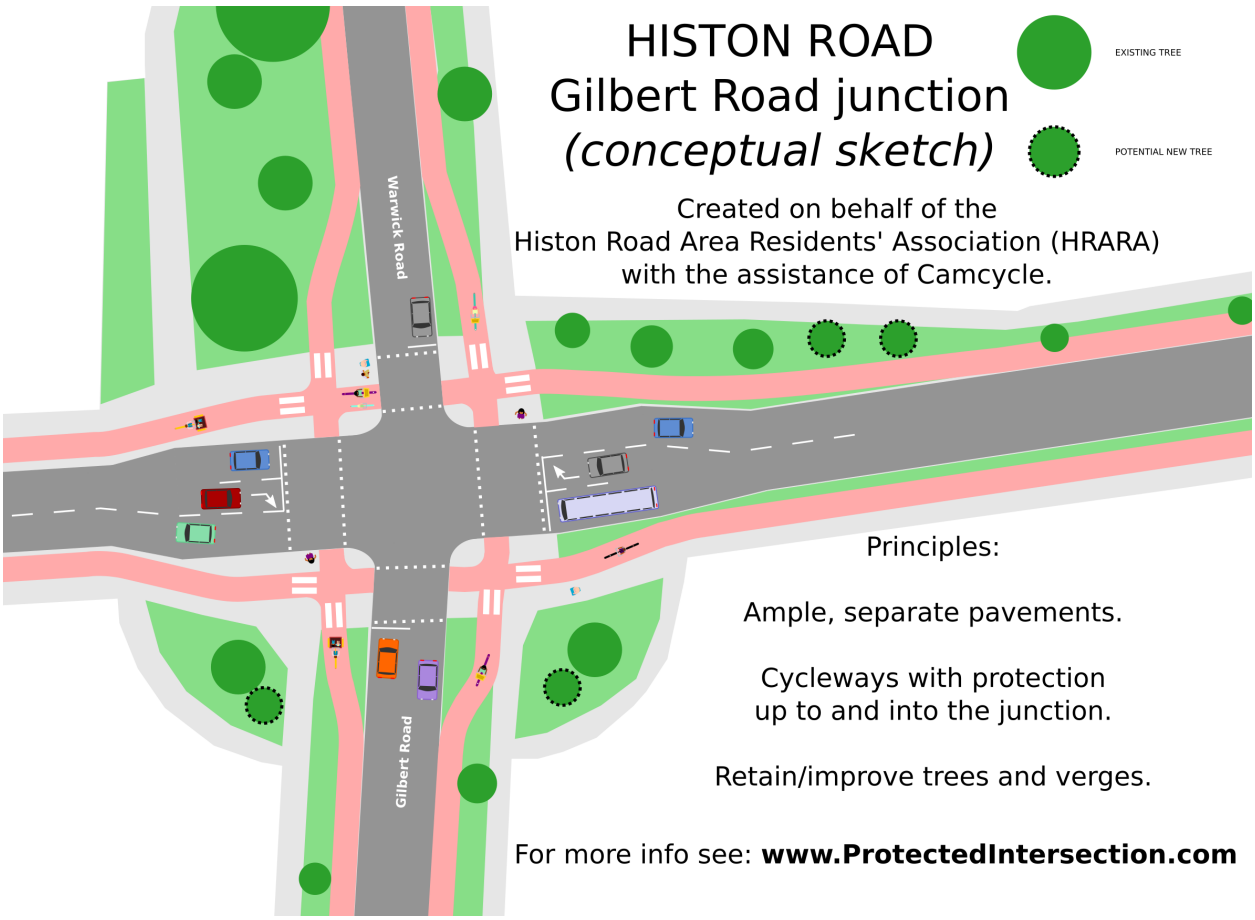
- The design must be robust and flexible for the future.
- The design must be safe and fair for pedestrians, cyclists, buses and other vehicular traffic. Design should stay within the current highway boundaries.

Advantages of proposal:

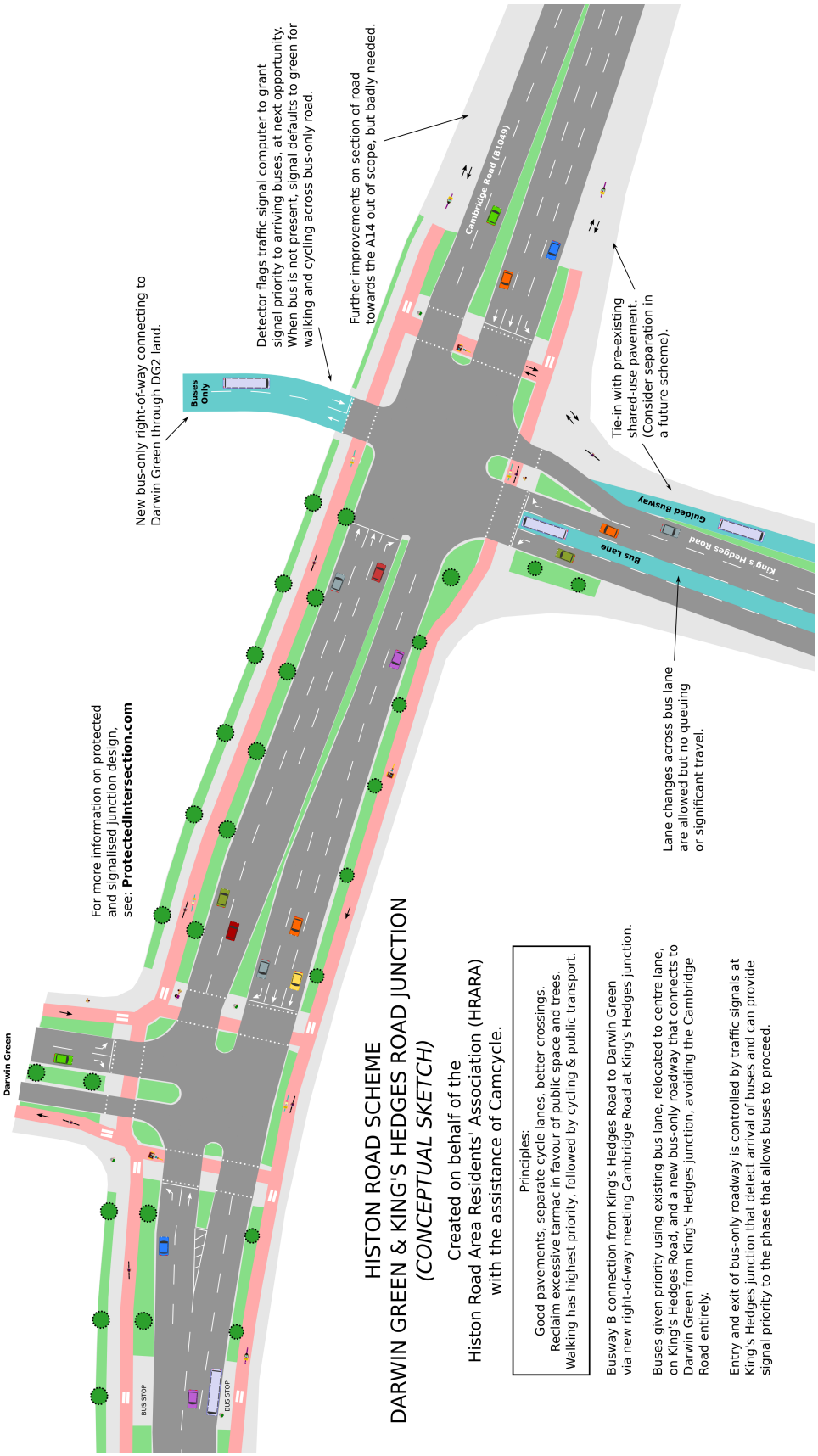
- Pedestrians & Cyclists:
  - Pedestrians and cyclists are separate and protected from motor traffic
  - Safe, convenient pedestrian and cycle routes and road traffic crossings
  - Crossings of roadways at vehicular traffic lights and coordinated with the lights
  - Light sequencing happens automatically
  - Waiting times are short and predictable so that pedestrians & cyclists have sufficient time to cross the roadway safely and will be encouraged to obey the red lights.
  - Pedestrian and cycle lanes are comfortable at approximately 2 metres wide or better.
- Buses
  - Sequencing of lights prevents blockages of Histon Road into the city ensuring that buses make progress on every signal cycle.
  - Can optionally add peak-time bus-only restrictions as needed: Victoria Road to Histon Road, Histon Road to Victoria Road, or Huntingdon Road to Victoria Road
  - Bus drivers can safely make turns unimpeded by pedestrians or cyclists who are on separate paths and conflicting movements are protected by traffic signals coordinated with the motor traffic.
- Cars, Vans, HGVs
  - Allows all turns at most times giving access by vehicles to their goals without forcing rat running.
  - Better timing of lights and sequencing of flows reduces pressure to rat run.

C Junction: Gilbert Road / Histon Road

This is important for access to Mayfield Primary School and Chesterton Community College. Any design taken forward should incorporate segregation of pedestrians and cyclists from motor traffic by trees and verges. It should also include features and surfaces for older people and people with disabilities. The conceptual sketch of the junction in question (see below) prepared by HRARA in cooperation with Camcycle is a possible protected junction design that includes these parameters.



D Junction: Darwin Green Spine Road / King's Hedges Road / Histon Road



E Discussion of Proposed Bus Lanes: Advantages, Disadvantages, and Alternatives

(a) Since much of Histon Road is narrow, a bus lane would involve compulsory purchase of land from private gardens and removal of trees; both of these possibilities were, at Histon Road LLF workshops, regarded as unacceptable.

(b) Traffic modelling as stated in the interim options report shows that savings in bus times would be a maximum of only 1-4 mins during the morning peak; outbound journey times would be increased during the evening peak. Equivalent or even greater savings at both peak times could be expected if the much less costly option of on-board smart ticketing through multiple doors were to replace the majority of cash payments; passengers would soon learn the benefits of savings in time and money. Some reduction in number of bus stops would also speed up journeys. Such alternative measures were strongly favoured in the Histon Road LLF workshops, rather than expensive bus lanes involving major engineering works of doubtful benefit.

(c) Implementation of all-door boarding through multiple doors with integrated smart ticketing has been widely implemented in bus services throughout the world; for example in Seattle they have reported an improvement of 20% in bus journey times from these measures alone. If the Greater Cambridge City Deal adopted this mission to make the necessary political and organisational changes that would lead to the provision of this type of integrated ticketing system across the network and better-designed bus vehicles, then the benefits would accrue to all public transport riders throughout the region.

(d) The major source of peak time congestion on Histon Road is the 5-way HHVCM junction; we believe that the effect on traffic of the redesign of this junction should be studied and analysed before any decisions about bus lanes anywhere on Histon Road are taken. In any case, no bus lanes are being proposed at this junction, nor is there space for them to be considered, so bus lanes elsewhere will not help relieve the congestion at its source.

(e) Furthermore, any decisions regarding bus lanes on any part of Histon Road should be postponed until a holistic and strategic view is developed linking the Histon Road scheme with other proposals for Cambridge such as the Western Orbital, some of which are in Tranche 2. Important proposals affecting Histon Road traffic include the busway link from the King's Hedges Road junction to Darwin Green envisaged at the City Deal Board meeting on 9 June 2016, which would reduce the need for additional bus capacity on Histon Road itself. The effect of the link between Madingley Park & Ride, North West Cambridge, Darwin Green and the Science Park which has secured S106 agreements, should be evaluated before further decisions are made.

(f) For example, it is possible that the Western Orbital, combined with upcoming changes in Darwin Green, will obviate the existing routing of the Busway B service down Histon Road and instead allow it to be placed on a more direct route via Darwin Green. One way that could happen would be possible after the Western Orbital begins to serve Orchard Park with much better frequencies and connections than are provided today by the Busway B. Currently, the Busway B goes out of its way to serve Orchard Park, taking a dogleg about 1.2 km to the east of Histon Road before returning. Once the Western Orbital begins operation, the existing Busway B route will be overlapping with the Orchard Park section of the Western Orbital. At that point then it may be much more sensible for the Busway B route to be re-routed along a straighter route through Girton or Histon in place of the existing dogleg around Orchard Park. This proposed re-route would make the Busway B route much more direct and attractive, it would avoid duplicating Western Orbital service, and it could potentially provide service to underserved village areas. This way the Busway B and the Western Orbital would still have a connection point, in the vicinity of Darwin Green, and would form part of a network of routes providing better service to a wider area.

While this type of re-routing is outside the remit of the Histon Road LLF, it could have a major impact on the number of buses that use Histon Road in the future. The City Deal Board should consider looking at options like this during a wholesale review of the public transport network. The Histon Road LLF would like to ensure that

expensive and irreversible decisions about infrastructure are made in conjunction with a holistic, well-thought-out and consulted plan for the public transport network.

F Parking Survey

Our preliminary survey of Histon Road in the region between Windsor/Akeman Street junctions and the junction with Huntingdon Road/ Victoria Road shows that current parking provision on Histon Road is mostly on the west side where there is existing space for about 30 average-sized cars for Benson Street Residents' Parking, 10 cars in Pay and Display space and 9 cars in unrestricted parking. On the east side there is an unrestricted parking bay for 3 cars.

G Speed Limits and Heavy Vehicle Night Time Restrictions

Speed Limits

Between the Victoria Road and Gilbert Road junctions, Histon Road is narrow. In places, the highway is only 12 meters wide. Given the density of traffic on such a narrow road, a 20 mph speed limit would increase safety. Therefore, any future design of this section of Histon Road should fulfill all requirements necessary for the enforcement of any such 20 mph speed limit.

Heavy Vehicles

We favour the imposition of night time heavy vehicle restrictions along Histon Road in order to reduce the impact of noise and vibration on local residents.