Swiss Cottage Gyratory and CS11: CCC position

Objectives

1. Remove the gyratory which is dangerous for cyclists and unpleasant for pedestrians (noise and air pollution).
2. Create a people friendly space on Avenue Road. This could also include new shops, cafes, expansion of market, etc. .
3. Create safe, convenient and well connected North-South and East-West cycle routes.

Outline - Figure 1

East-west connectivity is very important

Camden's east-west quietway (*QW Camden E-W*) runs across the gyratory between Belsize Road and Swiss Cottage market. Therefore a good quality two-way link across Finchley Road is essential.

The roads forming the gyratory and those approaching it

We refer to Finchley Road, Avenue Road, Adelaide Road, College Crescent and Hilgrove Road.

- Two way cycling should be provided on all of these roads.
- Where motor vehicle flow exceeds 2000 PCUs[1] per day or speeds are greater than 20 mph cyclists need to be in separated one way tracks at least 2 m wide.
- The possible contention between cycles and bus stops should be solved in a manner that avoids cyclists riding round the outside, for example by provision of island bus stops.
- It is better for bus passengers to find the return bus stop on the same road as the arrival one.

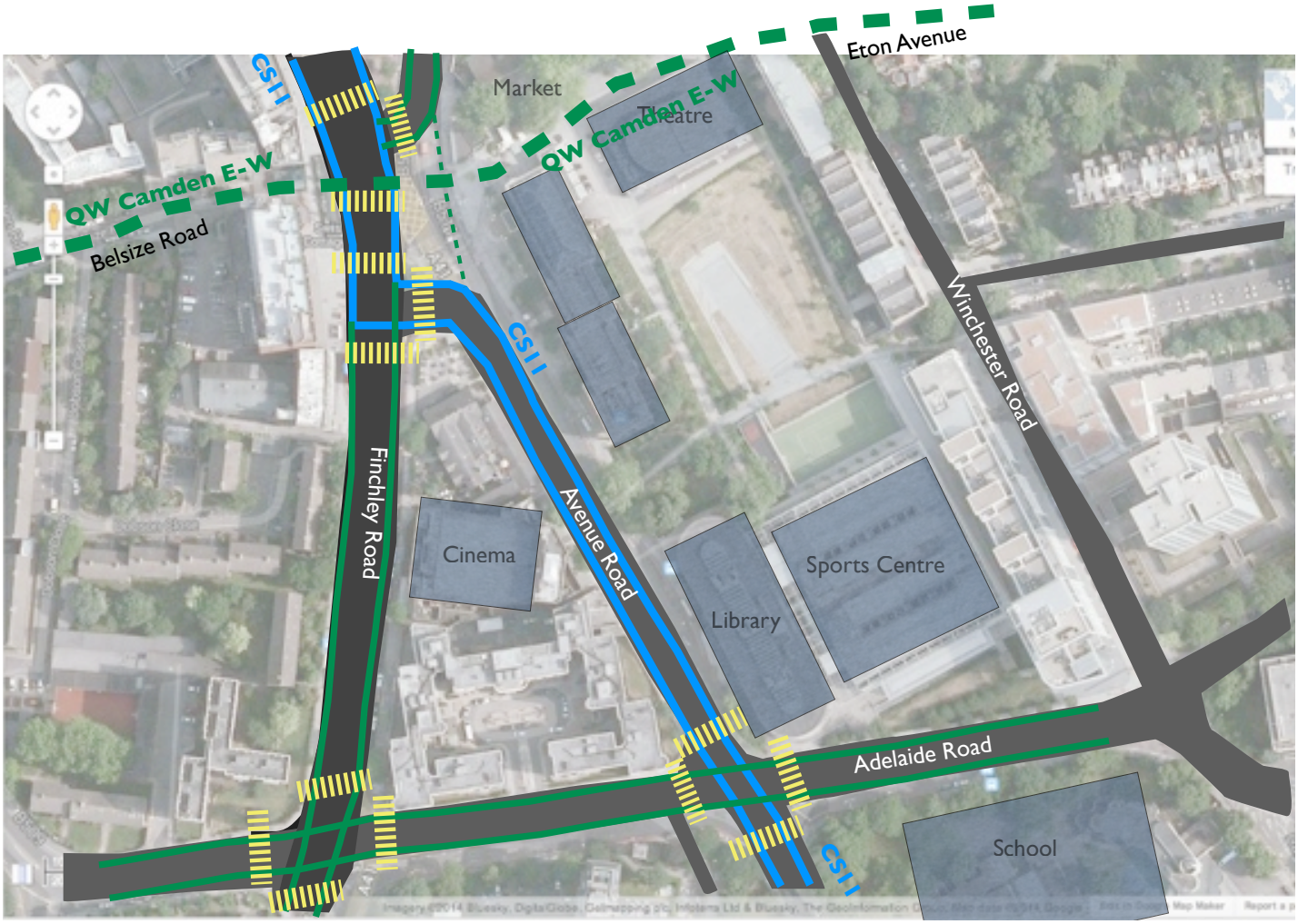

Figure 1. CS11, QW Camden E-W, the T-junctions, straight over crossings

The junctions

At the junctions, signals should be used to separate cyclists straight ahead movements from the turning movements of motor vehicles. And all turns should be available for cyclists even when they are not provided for motor vehicles.

Cyclists and pedestrians should be provided with at least as much time to cross a junction as motor vehicles. All of these must be straight over crossings (signal controlled).

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[1] Passenger car units. LCC AGM Motion 3, Oct 2013.

We suggest that the northern junction of the gyratory is treated as [2] as shown in Figure 1:

- Finchley Road@College Crescent
- Finchley Road@ Avenue Road

The division should be configured so that cyclists on *QW Camden E-W* can cross Finchley Road between the two T-junctions. (The existing one way crossing traverses both Avenue Road and Finchley Road). The cycle crossing could share the signal stage with the pedestrians crossing the south side of *Finchley Road@College Crescent*.

Avenue Road

Avenue Road should cease to be a through route for private motor vehicles, leaving Finchley Road to provide the A41 trunk road, hence Finchley Road needs to be two-way for motor vehicles. (This will discourage rat running between Fitzjohns Avenue and Regents Park and help to calm the remainder of Avenue Road.)

The changes should result in a high quality 'town centre' environment in Avenue Road for all users (pedestrians, cyclists, and possibly bus users or non-through private motor vehicles). We present two options:

Option 1 (which we prefer): pedestrians and cycles only;
Option 2: pedestrians, cycles and two way buses avoiding bus contention.

In both cases the cycle links at the two junctions need careful consideration.

Avenue Road Option 1: pedestrians and cycles only (Figure 2)

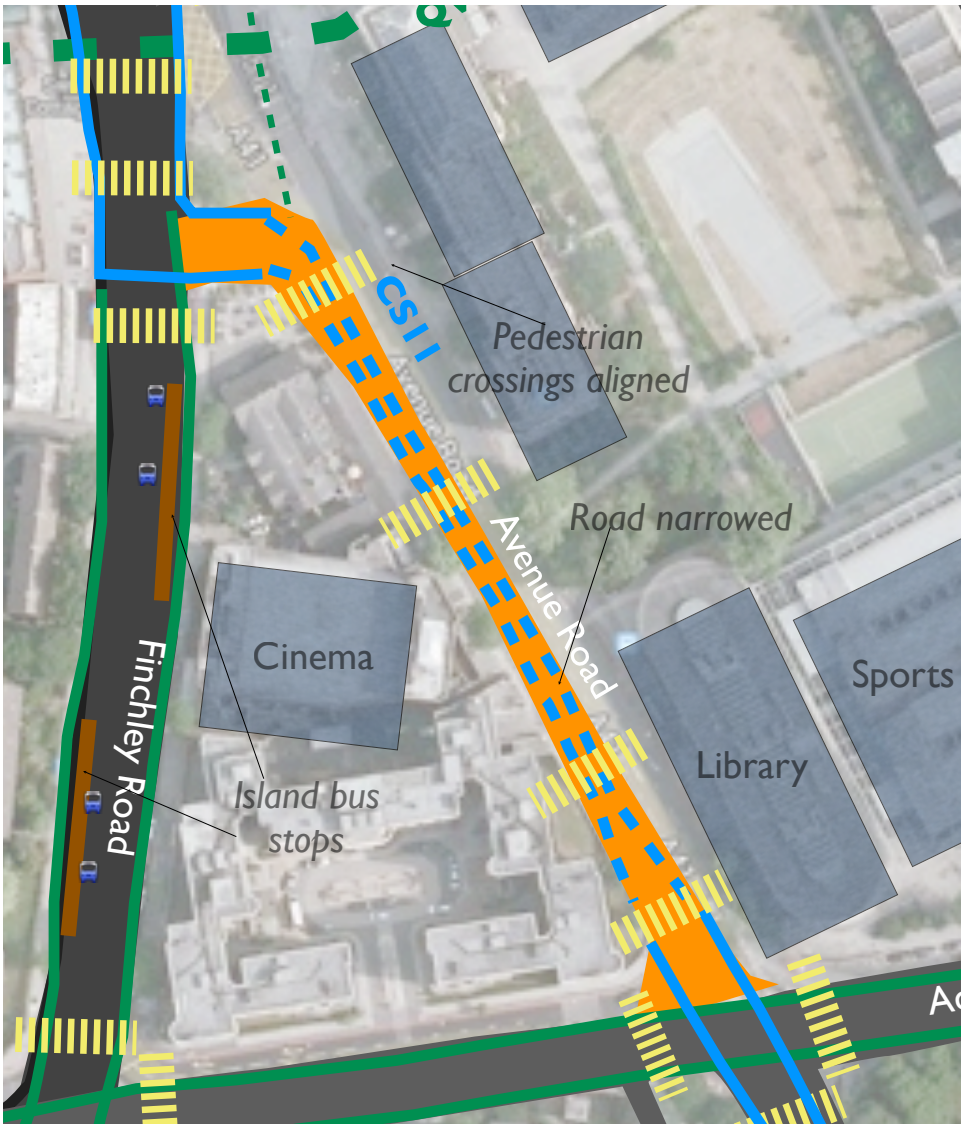

Figure 2. Option 1: pedestrians and cycles only

The blue dashes over the orange background in Figure 2 indicate the route of CS11 on Avenue Road between Finchley Road and Adelaide Road. The Mayor's vision describes superhighways as 'high capacity, mostly on main roads, for fast commuters'. Therefore, its route through Avenue Road should not be implemented as 'shared space' (i.e. pedestrians and cycles sharing).

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[2] Replacing a cross roads with a pair of T-junctions reduces the number of potential movements in and out and hence the number of potential conflicts.

Figure 2 illustrates the following advantages:

- The elimination of motor vehicles should produce a calm, unpolluted atmosphere and car parking is eliminated.
- Since this is a road only for cycles, there will be no need for separated cycle lanes.
- Avenue Road can be a lot narrower (e.g. 6-8m) and the footways can be widened.
- There is scope for several zebra crossings.
- The pedestrian crossing at the nothern end can be a zebra and can be moved south to align with the crossing over Finchley Road.
- It should simplify the working of the junctions at Finchley Road and Avenue Road. For example at the Finchley Road junction, it might be possible to use a 'simultaneous green' to give bikes and pedestrians their own green phase, and allow cyclists to go in any direction including diagonally across a junction. See video of junction in Groningen.

Island bus stops on Finchley Road

Since the bus stops will be on Finchley Road, passenger islands should be provided. We suggest a continuous island for multiple bus stops in each direction but not opposite one another, as shown in Figure 2. The direction of the cycle track should change gently as it passes behind the island and again when it comes out.

Avenue Road Option 2: buses and cycles only (Figure 3)

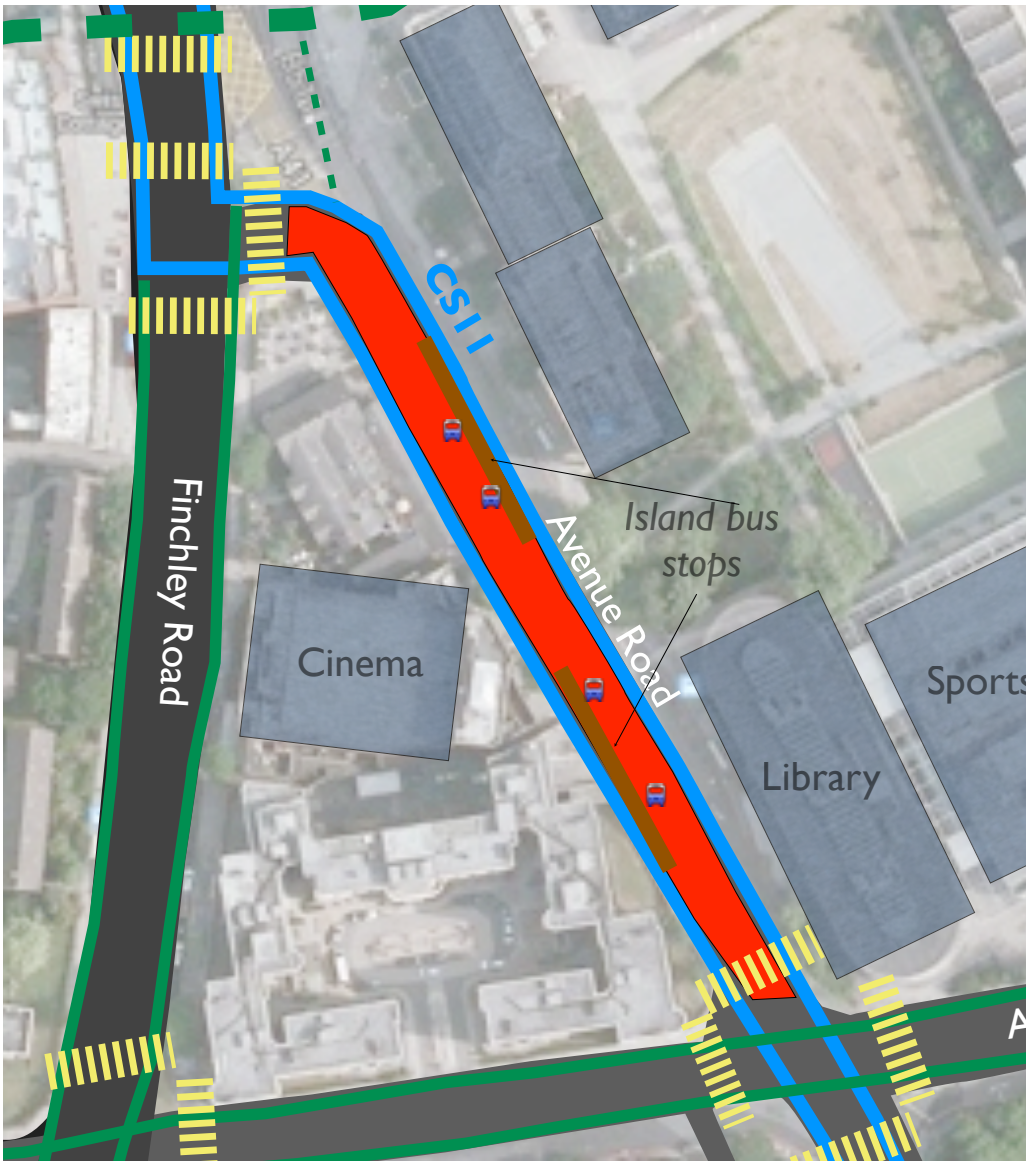

Figure 3. Option 2: buses and cycles only

In this option, the route of CS11 along Avenue Road will be in separated tracks and buses will run in both directions in the red area shown on the map.

In AM and PM peaks, approximately 120 buses travel through Swiss Cottage gyratory[3]. A bus is estimated at 3.5 PCUs bringing the estimated daily total to well over 2000 PCUs per day. And in addition, buses are HGVs.

[3] Better Junctions: Review Summary Report, TfL, Jan 2012 (125 AM and 114 PM)

With a single bus and cycle lane in each direction, the carriageway width can be reduced, allowing for some more space on the footways. To economise on road width the bus stops will not be opposite one another. At the bus stops, buses will need to use the other side of the road to overtake – to avoid the queue tails overlapping, the bus stops need to be arranged as illustrated.

The advantages of allowing only buses and cycles in Avenue Road:

- As in Option 1, the need for car parking is eliminated and to a lesser extent, the absence of private motor vehicles should calm the road.
- Avenue Road can be narrowed a little (e.g. to 12-13m) and the footways can be widened somewhat.
- Although Figure 3 doesn't show zebra crossings, it may be possible to add one e.g. between the two bus stop islands. It's probably not possible to put a crossing level with the crossing over Finchley Road due to potential conflict with buses queueing at the northern junction.
- The southern junction may be simplified since there are no bus routes on Avenue Road south of Adelaide Road.

Camden's east-west quietway - Figure 4

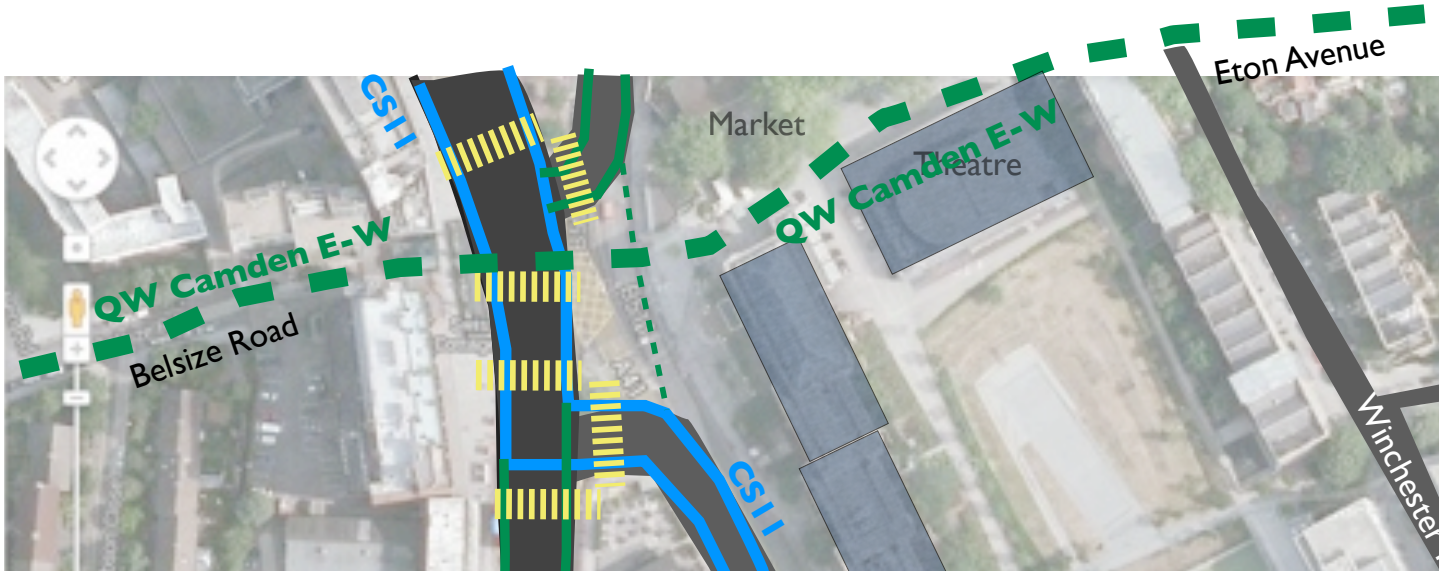

Figure 4. Camden's east-west quietway

The following are three main challenges for getting this route across Swiss Cottage:

1. Belsize Road is 3-4 metres below Finchley Road (Figure 5).

Figure 5. View from Belsize Terrace towards steps up to Finchley Road

The paved area in the front of the photo extends approximately 25m from the blue hoarding.

For cycling ramps Sustrans recommends a gradient of 1:20 with absolute maximum 1:12 (not DDA compliant). A 1:12 ramp would require a length of 43 metres to negotiate a fall of 3.5 metres. Even with a bend, this would not fit into the

25m space to the pavement along Belsize Road. This implies that we will need to consider a gently-sloped wheeling ramp beside steps. Figure 6 compares the horizontal length required for a variety of ramps.

Type of ramp	gradient	%	degrees	horiz. length of ramp
Sustrans recommended	1:20	5	2.9	70
Sustrans maximum	1:12	8	4.8	43
NL optimum for wheeling	1:2.7	36	20	9.6 + landing
Outdoor staircase	1:1.5	67.5	34	5.2 + landing

Figure 6. Table showing gradients of ramps and their lengths for a fall of 3.5m

The gradient of an outdoor staircase is generally about 34 degrees, but at this angle, a wheeling ramp is not comfortable for pushing loaded bikes or for use by less agile people. In NL, a gradient of 20-25 degrees is regarded as optimal for wheeling ramps see photo of Utrecht Cycle Station. Photos of several other examples with a variety of gradients can be seen on Cycle Streets. See also the video 'Using a wheeling ramp in Zwolle, Netherlands. To support regular two-way use there should be separate ramps for up and down use (or possibly a wide one In the middle of the steps). For information on CROW standards for wheeling ramps see this discussion.

The length required for a 20 degree ramp would be 9.6m plus space for a landing: to cater for all users in the most comfortable way, the gentler the slope, the better.

2. The route passes through Swiss Cottage Market

We assume that the market area will continue to be shared by cyclists and pedestrians. The Quietway through the market should be designed to have good sight lines, to avoid obstructions and be clearly way marked.

It should connect in both directions with CS11 on Avenue Road and with College Crescent through the space shared with pedestrians to provide an alternative to the route via the pair of T-junctions.

3. The route crosses Finchley Road

This cycle crossing traverses between a footway on the west side and the market area on the east side. As mentioned earlier, the arrangement with two T-junctions will allow it to cross only one road – Finchley Road. It is essential that this crossing is well marked, has guaranteed protection from motor vehicles and a good share of the signal time.

Jean Dollimore, on behalf of CCC, Jan 2014

List of Links in Full

LCC AGM Motion 3, Oct 2013. http://lcc.org.uk/articles/agm-motions-confirm-our-commitment-to-campaigning-for-streets-that-make-cycling-safe-and-inviting-for-every-londoner

Cycle segregated junctions. http://www.camdencyclists.org.uk/newsitems/ccc/junctions-designed-to-avoid-left-hooks

Video of junction in Groningen http://www.youtube.com/watch?v=roIeRZA5w54&feature=player_embedded

Photo of Utrecht Cycle Station. http://www.cyclestreets.net/location/11412/

Gallery of photos of wheeling ramps on Cycle Streets http://www.cyclestreets.net/galleries/33/

Using a wheeling ramp in Zwolle, NL. http://www.youtube.com/watch?v=8UF5naRkWzY

Discussion that includes CROW standards. http://www.linkedin.com/groups/Where-can-I-find-good-3934091.S.55979829

Bicycle escalators in Japan. http://www.bikestorming.org/the-bike-a-lator/ and video http://www.youtube.com/watch?v=8CMDwtXCM6Y