

Highway Authority Comments on BBUG response to 20/01830/F dated 24 Aug 2020		
Section	Issue raised	Highway Authority opinion
Summary	See individual issues below	
2	Design does not meet Policy SLE4	Interpretation of the policy is a matter for CDC. However, my opinion is that the proposed design (with the changes I have requested in my response) offers high quality, safe pedestrian and cycle infrastructure which will encourage walking and cycling by all users, and is suitable within the context of the location on a busy, strategic junction on the edge of Bicester.
3.1	Junction capacity: 'unreflective use of the default setting for the ratio of flow: capacity (RFC) of 0.85'; 'mechanical acceptance of the default settings on the ARCADY software'	When giving preapplication advice I challenged the use of the 0.85 RFC threshold conventionally applied, and proposed alternative thresholds for junction capacity based on queueing and delay. This is set out in section 6.1 of the Transport Assessment that accompanies the application, which states 'Through consultation with OCC Highways, it has been agreed that for the purposes of the junction modelling, and RFC value over 0.85 would be acceptable, subject to the following parameters not being exceeded: no more than 30 vehicles queueing or blocking any other junction on the approaches to the roundabout, and, a delay per vehicle of no more than 120 seconds'.
3.1	'copies many of the disastrous aspects of other roundabouts in Bicester that have led to serious usability issues for all road users, including fatal accidents and serious and repeated damage to infrastructure.'	The letter is not specific about what 'disastrous' aspects have led to these problems. However, I believe the author may be referring to the Vendee Drive roundabout (fatalities), and the Rodney House roundabout (damage to infrastructure). I cannot comment on the causes of those collisions. However, I can say that the design and setting of both these roundabouts have several key differences from the proposed roundabout.
3.1	Provides 'excess motor vehicle capacity during narrow peak-time windows'	Transport assessment focusses on the peak hour because that is the worst case. The network needs to function at peak times. This roundabout will be at a key, strategic junction. If it is a bottleneck at peak times, then it is more likely that traffic will re-route through undesirable routes, worsening conditions for pedestrians and cyclists, including on the existing A41 as it passes employment sites, retail parks, restaurants and a secondary school. The TA shows that the proposed roundabout design would operate comfortably within capacity in the morning peak, but queues just under the threshold set of 30 vehicles would form on the Graven Hill arm in the evening peak. I do not consider this to be excess capacity. There are plans for this arm to become a strategic link road to the A41 south of Bicester so it is important that it is not designed to be under-capacity. The future link road will

		relieve the A41 through Bicester, improving conditions for sustainable and active travel in the town, so we do not want to discourage drivers from using it as a result of congestion where it re-joins the A41.
3.2	'the designer has tried to make provision for active travel only at the very last stage of the design, by which point the only provision that can be made is negligible'	There is no evidence to suggest that this statement is correct. Cycle and pedestrian facilities have been incorporated in the design according to nationally set standards (Design Manual for Roads and Bridges). Improvements have been requested to bring them in line with the new LTN 1/20 standards.
3.2	Wide, swept approaches	For safety reasons, the geometry of the proposed roundabout has to take into account the current speed limit, which is 50mph (this is not to say that it is expected people will drive at 50mph around the roundabout – it is about what realistic speed they can and will reduce to on the approach to the roundabout). The width of the approaches is also necessary to provide the capacity (which in my opinion is not over capacity – see above). The geometry also has to allow for the swept path of HGV movements, of which there are many in this location, and this will inevitably increase due to the expansion of the nearby Symmetry Park and the development of other employment sites at Bicester. If the design does not allow for the turning movements of these vehicles, kerbs will be overrun, causing maintenance and potential safety issues.
3.2	Crossings at considerable distance from natural desire lines.	The crossing on the A41 E arm is distant from the desire line, because it would be unsafe for it to be closer to the roundabout due to the three-lane eastern approach. The three lanes are necessary to provide adequate capacity for traffic flows turning left onto the future strategic link road. (Again, we will want to encourage drivers to use this new road in preference to driving through Bicester on the A41). It is also likely that this arm will have lower demand for crossing than the other arms, given the location of the residential element of Graven Hill northwest of the roundabout. The signalised crossings on the other arms are 20-25 m off the desire line, and I have asked for consideration to be given to removing the stagger on the A41W arm crossing. A 50m detour would represent only a few seconds for a cyclist and less than a minute for a pedestrian. The signalised crossings cannot be closer to the roundabout, for safety reasons. The author correctly explains that signalised crossings are the only acceptable type of crossing for the speed limit. This is a scheme that a developer proposes to introduce on the existing network, and as explained above, it has to be designed for the current speed limits as it cannot be assumed that the speed limit can be reduced from the current 50mph to 30mph, which would allow for a different design.
3.2	Straightening the approaches to the roundabout, tightening	Straightening the approaches to the roundabout would have safety implications within the current setting as it would allow drivers to approach too fast. Constraints to the geometry would reduce the capacity of the roundabout, which is undesirable as explained above, and within the current setting, could have safety

	geometry, and introducing zebra or parallel crossings instead of signalised	implications. LTN 1/20 Table 10-2 sets out that zebra or parallel crossings are not suitable for speed limits over 30mph.
3.2	Crossings that would permit cyclists to cross carriageways in one movement rather than two.	The E and S arms would allow for this. I have asked for this to be considered on the A41 W arm.
3.2	Requirement for segregated paths in accordance with LTN 1/20	I have objected to the proposed design on this basis – it needs to be brought into line with LTN 1/20.
4	Comments about the design process	I have already had separate correspondence with Paul Troop of BBUG on this. It's important to note the Highway Authority role in the planning process. The proposal is from the developer, primarily to provide access to Graven Hill. The developer has commissioned the design. The Highway Authority's role is as statutory consultee in the planning process. In the course of providing preapplication advice I became aware of BBUG's concerns, and advised the applicant to give them consideration by testing proposed layouts. Because the Highway Authority could not insist on this, and it was considered important, payment was offered for a limited, defined piece of investigative work, which the applicant's transport consultant carried out. The Highway Authority does not have any power to require the applicant to revisit the design, and we are satisfied that the proposed roundabout design is acceptable except with respect to specific elements set out in our consultation response.