



<b>A4/A4174/Hicks Gate Junction - LONG List of Options - Assessment against OBJECTIVES</b>						
<b>Option Reference</b>	<b>Council</b>	<b>Improve transport network resilience and journey time reliability</b>	<b>Enable growth by providing a long- term capacity uplift at Hicks Gate - SDL Mitigation</b>	<b>Enable short term benefits in highway operation through delivery of an earlier Phase 1 or interim scheme</b>	<b>Facilitate relocation and integration of the Park and Ride site at Brislington, and the introduction of priority measures</b>	<b>Improve opportunities for contributing locally to improved NMU facilities and routes in the Hicks Gate area.</b>
1	B&NES	No, only in the short-term without an A4-A37 Link Road. This configuration could not accommodate a large increase in NB traffic from the A4175/Link Road to the A4174 Ring Road.	No	Yes, but cannot be adapted to create an adequate 'full' scheme.	Yes	No real change. As with all options, the existing NMU route through the lightly trafficked part of Durley Hill will be affected and potentially severed by the relocated Park and Ride site to the SW quadrant of Hicks Gate. The route between the A4175 Durley Hill and the A4174 would continue to need the existing Toucan crossing point on the A4 Bath Road to the west of Hicks Gate.
2	B&NES	Yes, the assessed capacity uplift will improve journey time reliability on the extended orbital route. There will be potential	Yes, assessment shows the revised configuration could give a capacity uplift of +40% when compared to the current layout. This level of	Yes, gyratory enlargement can form a substantive Phase 1 scheme in its own right, with later modifications to the south to enable	Yes	Minor benefit. As with Option 1, the lightly trafficked section of Durley Hill is potentially affected as an NMU route. However, full

		traffic relief to surrounding urban road networks in Whitchurch and Brislington with removal of this 'bottleneck', which will otherwise constrain usage/diversion to a new A4-A37 Link Road.	change would be capable of dealing with generated traffic impacts from the SDL at Hicks Gate, whilst still providing a 'net' benefit to existing or 'base-line' traffic.	connection of the A4-A37 Link Road.		signalling of the gyratory would allow controlled crossings to be added on the west side to improve the 'directness' of the NMU route between the A4175 and A4174.
3	B&NES	As Option 2 above	As Option 2 above	As Option 2, accepting that the later link provided through the gyratory would cater for the northbound orbital movement.	Yes	As Option 2 above
4	B&NES	No, junction modelling shows that a signal crossroads layout would fail in capacity terms (2036), namely due to a necessary four stage Method of Control.	No	Yes	Yes	Minor benefit. As with Option 1, the lightly trafficked section of Durley Hill is potentially affected as an NMU route. However, signalisation as proposed would allow controlled crossings to be added on the A4 Bath Road arm to improve the 'directness' of the NMU route between the A4175 and A4174.
5	B&NES	No, the amount of traffic removed by E-W	No	Yes, Option 5 could be developed as a Phase 1	Yes	Minor benefit. As with Option 1, the lightly

		grade separation along the A4 axis is much less than the expected growth in the overall roundabout inflow over the period 2013-2036 (with the A4-A37 constructed). As such, what is effectively the existing roundabout layout would be required to accommodate growth of circa 1,100 vph in each weekday peak hour.		scheme in its own right, with later modifications to the A4175 Durley Hill arm to the south to enable connection of the A4-A37 Link Road.		trafficked section of Durley Hill is potentially affected as an NMU route. The existing 'staggered' Toucan crossing on the A4 Bath Road to the west of the roundabout would be lost. However, signalisation as proposed would allow controlled crossings to be added on the A4 Bath Road arm of the roundabout to improve the 'directness' of the NMU route between the A4175 and A4174.
6	B&NES	Yes, but subject to overcoming significant design delivery issues with the vertical alignment and 'tie in' points.	See left	No	Yes	As Option 1

**A4/A4175 Hicks Gate Junction - LONG list of options - Assessment against the five cases reported in a Transport Business Case**

Option Reference	Does the option meet the;				
	Strategic case	Economic case	Managerial case	Financial case	Commercial case
1	Partial. Only offers a short-term benefit (Phase 1). It will not deal with traffic attracted by the delivery of an A4-A37 Link Road	No, it will not cope with long-term growth. The signalled cross-over on the A4174 arm is a significant impediment to northbound straight-ahead capacity achievable from the A4175 Durley Hill/Link Road	No, this scheme is unlikely to command support from key Stakeholders and residents in Keynsham if it cannot be demonstrated that it caters for long-term growth and facilitates the delivery of an A4-A37 Link Road.	Options not being assessed against a budget so affordability cannot be determined Yes. This option is expected to have moderate costs as changes to the junction are all at-grade. No significant structural or flood mitigation works.	The project could be delivered through a range of procurement models. No significant commercial barriers have been identified.
2	Yes, assessed as accommodating the 2036 'Design Flows' derived from G-BATS (with the A4-A37 Link Road in place)	Yes, see left	Yes, at-grade proposals to expand the roundabout to create a larger gyratory are unlikely to be controversial to local residents/stakeholders, Encroachment into land in Flood Zones 2-3 to the NW is avoided, reducing any risk of objection from the EA.	Yes	As Option 1
3	Yes, as Option 2	Yes, as Option 2	Yes, as Option 2	Yes, as Option 2	Yes, as Option 2
4	No. this junction configuration does not accommodate the 2036	No, see left	No, as Option 1	Yes	As Option 1

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Option Reference	Does the option meet the;				
	Strategic case	Economic case	Managerial case	Financial case	Commercial case
	'Design Flows' derived from G-BATS. As such, it will act as a 'bottleneck' constraint in the future, which in turn will affect traffic electing to use the A4-A37 Link Road.			<i>Options not being assessed against a budget so affordability cannot be determined</i>	
5	Partial. The addition of a fly-over on the E-W (A4) axis will remove around 900 vehicles from the roundabout in the AM peak hour (2036), and around 1,000 in the PM peak hour. However, the 'net' inflow to the roundabout will still be much higher than now.	Unlikely, given the level of 'net' inflow increase in 2036, with the underlying roundabout configuration largely unaltered from existing,	No, the construction of a fly-over structure will be visually intrusive, and as such is unlikely to achieve full support from residents and key Stakeholders.	Unlikely, as there is a significant structural content and risks of cost escalation.	As Option 1
6	Yes, but subject to overcoming significant design delivery issues with the vertical alignment and 'tie in' points.	Yes, subject to overcoming deliverability issues	As Option 5	As option 5	As Option 1