

Davidson's Mains Roundabout

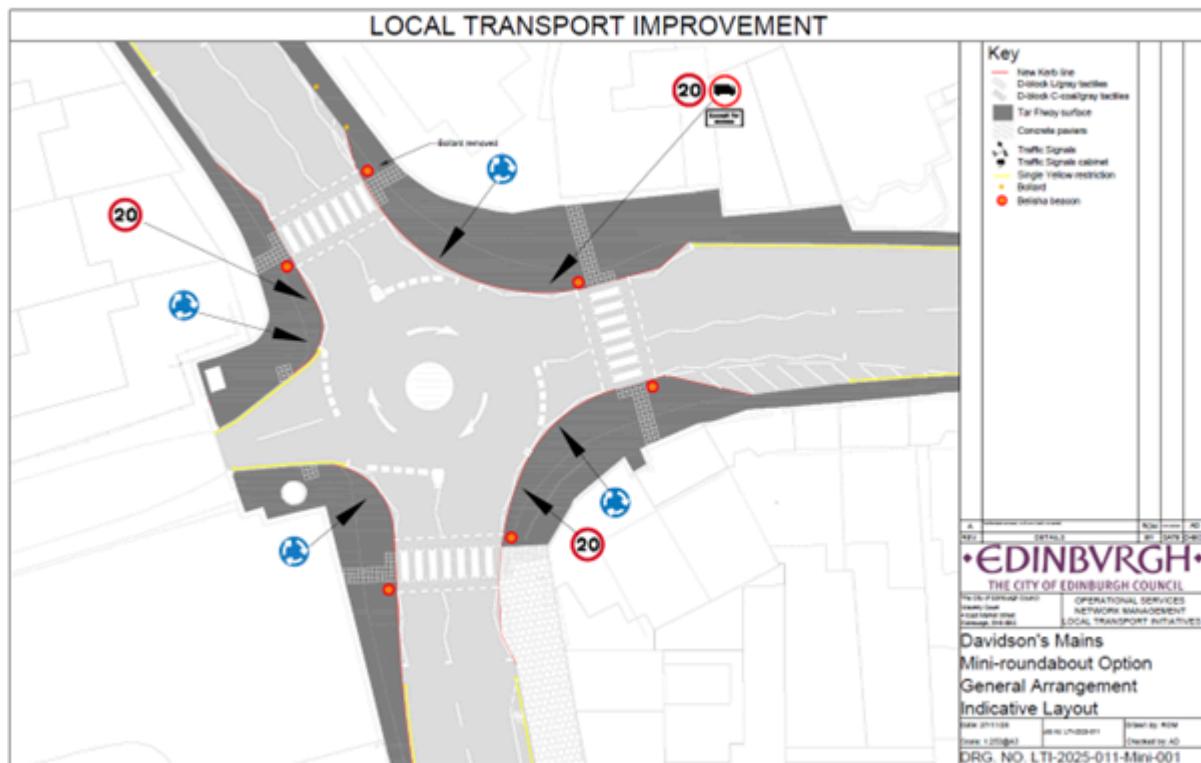
Our proposals

We have developed two options, both of which would improve the environment for pedestrians negotiating the roundabout and would reduce speeds of traffic in the immediate vicinity.

Both options are clearly subject to physical and operational restrictions. We have tabulated benefits and disbenefits of each option. Whilst the tabulated lists have been compiled based on professional judgment it is accepted that it may not be exhaustive.

Option 1 is a modification of the existing roundabout with zebra crossings whereby kerblines are adjusted to reduce the crossing width on three of the four arms, removal of the central island and replace with a single-stage zebra crossing on each arm.

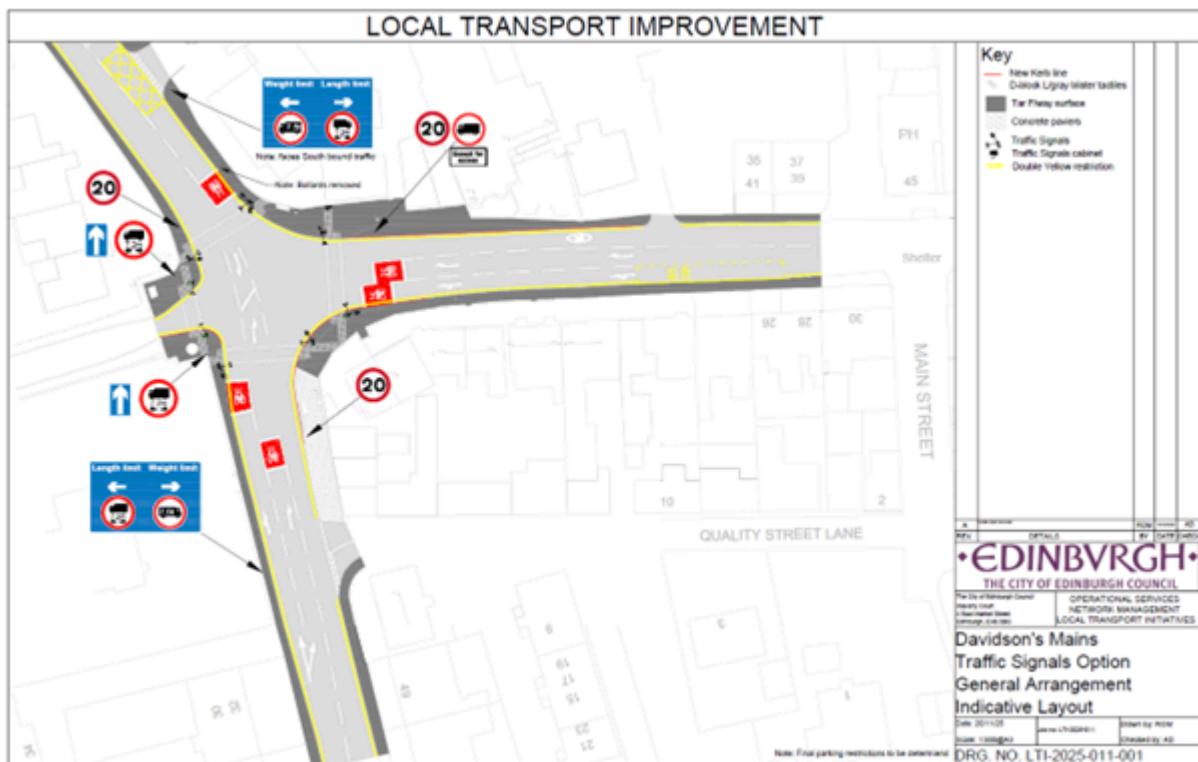
We did consider raising the crossing area of each zebra crossing however, given the turning requirement of the regular bus services this cannot be accommodated however the horizontal shift incorporated into the design would have the effect of tempering speeds.



Advantages	Disadvantages
Easy to deliver – could be delivered in tandem with resurfacing proposed in 2025/26 Q4.	Loss of advisory cycle lanes on approach to junction.

Widened footways compliment placemaking objective.	Single stage crossing results in a greater width to cross.
Access to East Barnton Gardens can be retained.	

Option 2 proposed signalisation of all four arms of the junction incorporating a an on-demand (push button) pedestrian stage on each arm. Given the protected status of the pillars at the entry the East Barnton Avenue West arm, we cannot position signal heads on that arm for emerging traffic therefore our design would limit this to entry only i.e. no exit from East Barnton Gardens. This, limitation would require the opening of the currently stopped-up East Barnton Avenue to through traffic.



Advantages	Disadvantages
Positive control of traffic. Push button (green man) pedestrian crossings.	Prevents flow from East Barton Gardens into the junction. This would mean that an internal route would have to be opened within the residential area for displaced traffic from East Barnton Gardens Davidson's Mains Park and Holy Cross Church.
Advance stop lines for cyclists can be incorporated.	No scope for horizontal deflection for north south/ south north movement.
Minimal kerb line alteration required.	Potential for red light running on and/or speeding on approach.
Crossing invitation unambiguous and easily understood by all road users.	Loss of parking/ loading opportunity outside shops and residencies affecting the ease of access.

Operation of signals can be linked to others on the wider network to optimise throughput and manage queues.	Hard engineering-based option resulting in a streetscape compromising people-focussed objective.
	Non-emergency traffic entering East Barnton Gardens would have to be restricted to 7.2m.
	Traffic held at lights where there may be no opposing flow.
	Audible signals associated with pedestrian crossings can cause disturbance for nearby residences.
	Shortened advisory cycle lanes on approach to junction.
	Lengthy delivery time associated with the legal process involved in changing junction form.