

Report to	Norwich Highways Agency committee 07 June 2018	Item
Report of	Head of city development services	9
Subject	Transport for Norwich – Earlham Five Ways roundabout safety scheme	

Purpose

To seek approval to consult on proposals to make safety improvements at the Earlham Five Ways roundabout.

Recommendation

To:

- (1) approve for consultation the scheme which includes:
 - (a) Upgrading three existing signalled pedestrian crossings to Toucan crossings;
 - (b) Connecting all four Toucan crossing with an improved shared path facility;
 - (c) Building splitter islands on the four arms of the roundabout;
 - (d) Resizing the central island to reduce the width of circulatory lanes;
 - (e) Building a new raised table on Gypsy Lane near to the roundabout and implementing a 20mph speed limit on this connecting arm;
 - (f) Installing new street lighting on the central island.
- (2) ask the head of city development services to carry out the necessary statutory procedures to advertise the road notices and traffic regulation orders for the safety scheme on the Earlham Five Ways roundabout;
- (3) note that all responses will be considered at a future meeting of the committee.

Corporate and service priorities

The report helps to meet the corporate priority a safe, clean and low carbon city

Financial implications:

The proposed scheme is estimated to cost £750,000. This will be funded from £65,000 of Norfolk County Council local safety scheme budget and £685,000 from Department for Transport (DfT) Cycle Ambition Safety Funding. A formal announcement on the DfT funding is expected shortly

Ward/s: University and Wensum

Cabinet member: Councillor Stonard - Sustainable and inclusive growth

Contact officers

Ed Parnaby, Transport planner 01603 212446

Joanne Deverick, Transportation and network manager 01603 212461

Background documents

None

Report

Background

1. The Earlham Five Ways roundabout is a busy five arm junction adjacent to the University of East Anglia (UEA) and City Academy with an undersized, oval shaped central island and inadequate facilities for cyclists and pedestrians to make crossing movements. In addition to the two Earlham Road arms of the roundabout, the remaining three arms of the roundabout (Bluebell Road, Earlham Green Lane and Gypsy Lane) are designated neighbourhood cycle routes. These neighbourhood cycle routes have direct connections to the green, pink and blue pedalways, the strategic cycle routes in Norwich.
2. The junction has appeared as an accident cluster site for many years and there have been a number of low cost interventions aimed at improving the safety record. Most recently, in 2016, Norfolk county council produced an accident investigation report (AIR) that identified the causes. It proposed a further low cost improvement based on the assumption that only a limited level of local transport plan funding would be available.
3. In February 2018, the Department for Transport (DfT) released information about funding for cycle safety schemes that the Cycle City Ambition Cities, such as Norwich, were eligible to bid for. These cities were allowed to submit up to two schemes that address safety where there is an established recorded injury data for cycling. Two schemes were submitted, these being the Earlham Five Ways roundabout and a larger scheme for the Earlham Road / outer ring road roundabout through to the Earlham Road / Heigham Road junction. The DfT will be making a formal announcement shortly on which schemes have been successful in getting funding. Should this scheme receive funding consultation will need to commence immediately to ensure that the spend profile of the bid is met.

Existing situation

4. The 5 year accident data in the AIR shows 13 accidents at the junction, 9 involved cyclists (2 serious) and 1 involved a pedestrian. These accidents cluster towards the eastern and northern arms of the roundabout. The existing geometry gives little deflection for vehicles travelling north and the limited slowing down effect on circulatory speeds is likely a factor in the accident cluster location towards northern half of the circulatory carriageway. There are a high proportion of collisions involving cyclists, with 75% having occurred at night (unusually high) and 50% on the roundabout circulatory lanes. Two injury collisions involved cyclists on shared use paths being struck by vehicles exiting the carriageway.
5. There is inadequate connectivity across this junction for those walking and cycling. This stems from a combination of:
 - (a) three signalled crossings that do not accommodate cycling and accordingly are not connected by suitable paths;
 - (b) very limited facility for pedestrians or cyclists to cross the junction on direct desire lines;

- (c) the Gypsy Lane arm having no formal crossing point;
- (d) Tree canopy creating shadow over the paths making pedestrians and cyclists less visible.

Proposals

6. The scheme comprises of (appendix 1):
 - (a) Upgrading three existing pedestrian signalled crossings to Toucan crossings to provide safe facility for pedestrians and cyclists to cross the four busiest arms of the roundabout (one arm already has this type of crossing);
 - (b) Connecting all four Toucan crossing with a shared path facility (including building out the footway into the carriageway) to facilitate connectivity for cycle movements separated from motorised traffic;
 - (c) Building splitter islands (2.5m wide) on the four busiest arms where adequate space is available to allow convenient and safe crossing for cyclists and pedestrians;
 - (d) Building a larger central island to reduce the width of circulatory lanes. This will reduce speeds and road position ambiguity, encouraging better vehicle positioning and reducing conflict between on-carriageway cyclists and other vehicles;
 - (e) Building a new raised table on Gypsy Lane near to the roundabout and implementing a 20mph speed limit on this connecting arm to improve the environment for walking and cycling;
 - (f) Installing new street lighting on the central island to avoid shadowing created by the tree canopy cover and to fully illuminate the shared cycle facilities and splitter island crossings.

Considerations

7. A similar scheme was implemented in Cambridge on the roundabout of Perne Road (A1134) and Birdwood Road. This junction had a similar three year record of accidents prior to the scheme, with seven accidents where cyclists were injured, of which two were serious. In the following three years, no injury accidents have been recorded.
8. The scheme is located in close proximity to the UEA, which has a significant level of cycling, with 21% of staff and 23% of students regularly cycling to the University. The UEA plan to increase the level of cycling further and are investing in additional cycle facilities on their campus, including cycle parking provision for 200 more cycles.
9. The proposed design maximises the number of journeys that can utilise a signalled Toucan crossing, whilst acknowledging that not all users will utilise the toucans in favour of the pedestrian refuge / splitter islands which are significantly improved.

10. The pedestrian refuge / splitter islands are 2.5m wide to facilitate convenient walking and cycle crossing where there is a clear desire to do so. This desire line was observed within the AIR.
11. Increasing the size of the central island and building out the footway (thereby creating narrower circulatory lanes) is an established way to reduce speeds of both circulatory and exiting vehicles. This will reduce accidents and make the junction far more convenient for walking and cycling.
12. Utilising a 20mph limit on Gypsy Lane will fit with its residential and traffic calmed environment and help to mitigate the lack of formal crossing where one could not be provided. Building a formal crossing would be problematic owing to the wide entrance to The Fiveways public house combined with limited width and nearby trees. Additionally, given the volume of pedestrians and nature of Gypsy Lane a formal crossing cannot be justified.
13. Providing street lighting located on the central island will improve lighting of the walking and cycling paths and raise driver awareness of people crossing. This approach will also mitigate some existing maintenance difficulties associated with the need to cut back tree canopies.

Conclusions

14. The proposed scheme meets the two main objectives; it significantly improves safety and improves the level of convenience for those walking and cycling. It will reduce the exposure to risk for all users and provide vital amenity for walking and cycling on this part of the network.
15. The proposed timescales for this scheme are for consultation in June/July 2018 before a decision at the September committee. Implementation would be during 2019; the exact timing will be dependant on other works in the area.

Integrated impact assessment



NORWICH
City Council

Report author to complete

Committee:	Norwich Highways Agency Committee
Committee date:	7 June 2018
Director / Head of service	David Moorcroft/ Andy Watt
Report subject:	Transport for Norwich – Earlham Five Ways roundabout safety scheme
Date assessed:	8 February 2018
Description:	A report to seek approval for consultation on safety improvements to Earlham Five Ways roundabout

	Impact			
Economic (please add an 'x' as appropriate)	Neutral	Positive	Negative	Comments
Finance (value for money)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Scheme will reduce risk of accidents and is largely funded by the DfT. Scheme is well located to maximise gain in walking and cycling
Other departments and services e.g. office facilities, customer contact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
ICT services	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Economic development	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Improving the access to education and employment along key transport corridor to UEA and housing development
Financial inclusion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Improving the access to low cost transport options
Social (please add an 'x' as appropriate)	Neutral	Positive	Negative	Comments
Safeguarding children and adults	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<u>S17 crime and disorder act 1998</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Human Rights Act 1998	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Health and well being	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Increasing safety for walking and cycling will promote health and well being

	Impact			
Equality and diversity (please add an 'x' as appropriate)	Neutral	Positive	Negative	Comments
Relations between groups (cohesion)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Eliminating discrimination & harassment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Advancing equality of opportunity	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Lowering speed and offering separation where appropriate benefits all users. A purpose built facility will better cater for walking and cycling.
Environmental (please add an 'x' as appropriate)	Neutral	Positive	Negative	Comments
Transportation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Improves facilities for walking and cycling along key transport corridor close to UEA and new housing development, working towards our transport objectives
Natural and built environment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Waste minimisation & resource use	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pollution	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Will encourage use of zero emission transport
Sustainable procurement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Energy and climate change	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Will encourage use of zero emission transport

	Impact			
(Please add an 'x' as appropriate)	Neutral	Positive	Negative	Comments
Risk management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Close monitoring will be required to ensure delivery within budget

Recommendations from impact assessment

Positive

There are a number of positive outcomes that will be achieved with this scheme and it is largely funded by the DfT with the remainder being funding allocated for safety schemes

Negative

N/A

Neutral

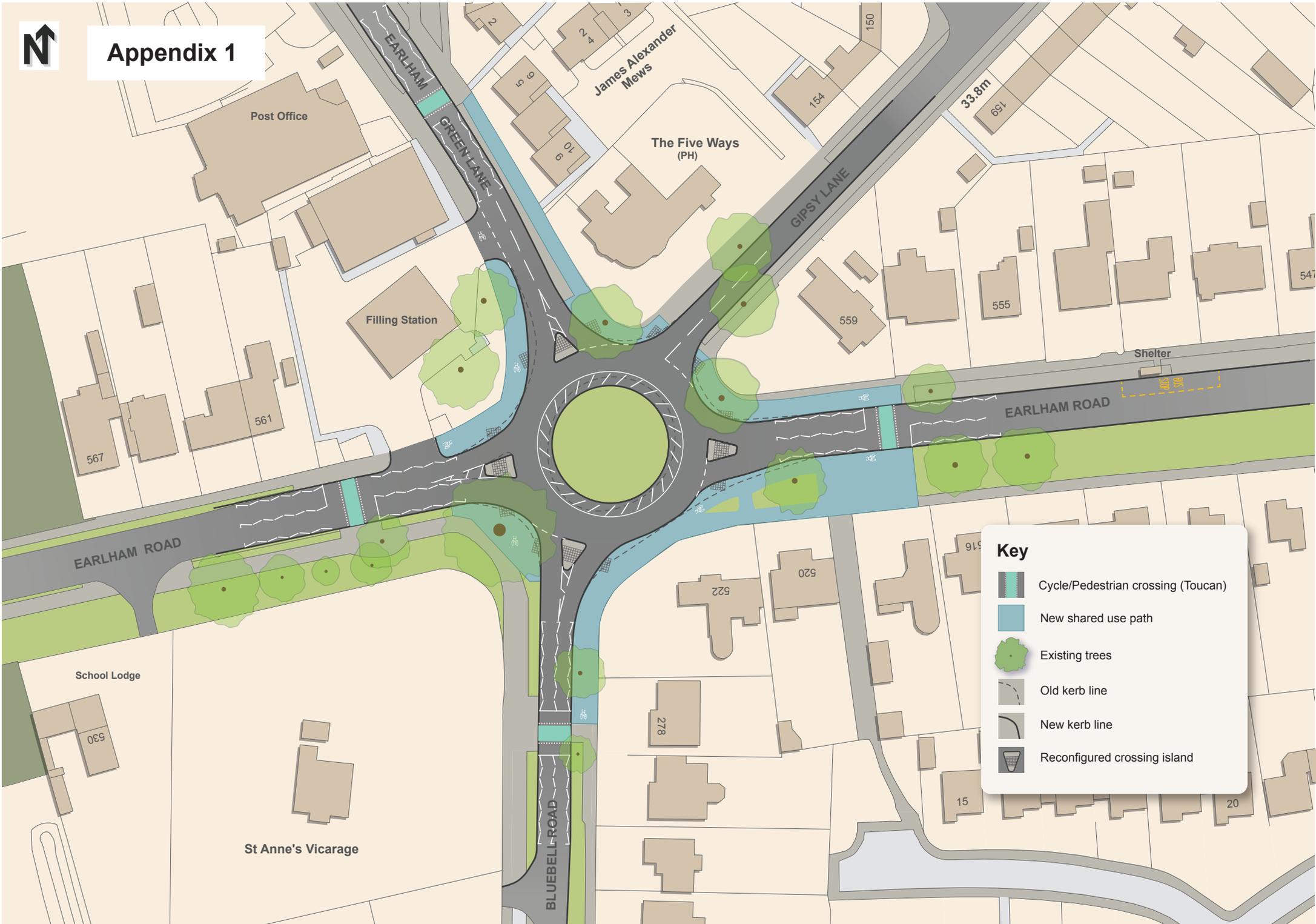
There is a degree to which this scheme will make the environment less urban by reducing traffic speeds and narrowing the amount of carriageway. This is partially offset by the widening of footways and the building of splitter islands

Issues

N/A



Appendix 1



Key

- Cycle/Pedestrian crossing (Toucan)
- New shared use path
- Existing trees
- Old kerb line
- New kerb line
- Reconfigured crossing island