

ELY SOUTHERN BYPASS – CYCLE UNDERPASS

To: **Economy and Environment Committee**

Meeting Date: **9th February 2017**

From: **Executive Director, Economy Transport and Environment**

Electoral division(s): **Ely North and East.**

Forward Plan ref: **Not applicable** *Key decision:* **No**

Purpose: **To inform members of work undertaken to evaluate the possibility of including a cycle/pedestrian underpass within the Ely Southern Bypass scheme as an additional work package within the contract.**

Recommendation: **Committee is recommended to:**

- a) Note the work undertaken to evaluate the cycle underpass,**
- b) agree not to proceed with the underpass as part of the Southern Bypass Scheme,**
- c) develop at-grade cycle facilities as an alternative.**

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1. BACKGROUND

- 1.1 The bypass scheme was developed, consultations undertaken and planning consent was given based on a design which did not include a cycle pedestrian underpass or other crossing facilities for pedestrians and cyclists travelling between Ely and Stuntney at the roundabout at the eastern end of the new road.
- 1.2 Ely and Stuntney are currently linked by a dual use footway/cycleway on the eastern side of the A142. However, this is relatively narrow and involves cyclists from Stuntney crossing the A142. The approved bypass proposals maintained and improved this path on the eastern side of the road around the new roundabout, although it is recognised that the overall existing provision is of a relatively low standard.
- 1.3 During the planning process, the call for the provision of an improved pedestrian/cycle route on the western side of the A142 from Stuntney to Ely, has led to the consideration of an underpass in the vicinity of the new eastern roundabout. The cycle route is included in the East Cambridgeshire Transport Strategy, although no specific design details are included and no funding has yet been agreed. There is also an aspiration to extend the route on to Soham.
- 1.4 As the planning and procurement process was advanced, adding the underpass to the scheme would have meant delaying progress in delivery. The bypass was therefore progressed, tenders issued and the contract awarded without the underpass being included. In parallel with this process, further investigation on the feasibility of the underpass was undertaken, and an early preliminary design was costed at £330k making the facility a potentially attractive addition to the scheme, which could be added to the contract if approved. On this basis a non-material amendment to the planning consent was approved to facilitate the underpass.

2. MAIN ISSUES

- 2.1 A more robust, but significantly higher cost has now been developed during the stage 1 contract design, taking into account further ground investigation and the contractor's input into the required construction methodology. This indicates that the underpass will require more than an additional £1m over the original estimate.
- 2.2 This work has also identified a number of issues to consider with the underpass, the most significant being that it will be partially below the ground water level. This means that:
 - Works will require significant de-watering and protection
 - The construction process will be more onerous to ensure a watertight structure
 - Amendments to some of the early highway design elements, for example drainage will be required.
 - Additional temporary works will be required to provide/maintain site access to the underpass and the rest of the site
 - The overall programme may be extended

- 2.3 The underpass design alignment is not ideal and the route includes ramps at the maximum permitted gradient and bends on the approaches. These features may deter some cyclists from using the underpass. Officers' views are that an at-grade crossing provided with the bypass scheme, is likely actually to provide as good or better a solution for cyclists.
- 2.4 There are long term maintenance costs to consider. A pumped drainage system will be required to remove any rain water. A warning system should ideally be provided to warn of pump failure. Should pumps fail, the underpass may flood and cyclists and pedestrians would be diverted onto the main carriageway.
- 2.5 The poor ground conditions, combined with a high variable water table, will increase the likelihood of movement of the structure. Minimal clearance above the underpass structure will mean that any movement in the underpass will result in damage to the new road. To minimise this heavily engineered and costly foundations will be required.
- 2.6 For all of these reasons, the additional inclusion of the cycle underpass in the scheme design is not recommended.
- 2.7 If at a later stage, installation of the underpass was required after the road is opened, this would still be feasible but the engineering challenges outlined above would remain and the cost and complexity of delivering the scheme with the road above would be significantly greater than at the time of the main scheme delivery.
- 2.8 Current cycling usage is low (around a total of no more than 45 per day). Some additional use may arise from potential improvements to routes between Ely and Stuntney/Soham. However, given the remoteness and size of the outlying communities any increase is likely to be modest in comparison to the cost.
- 2.9 Alternative provision for a cycle path and at-grade controlled crossing has been considered and a preliminary design developed which can be delivered within the overall project budget. The alignment could arguably provide a more convenient and secure route, but crossing the road may be considered by some cyclists as less convenient as they would have to wait to cross the road. Such an at-grade crossing is considered to provide a safe crossing point for the number of cycles likely to use the route in the foreseeable future and is being further developed as part of the current design process.
- 2.10 The impact of this type of crossing has been modelled on the basis of the cycle crossing traffic signal stage being called each minute at peak times, taking account of modelled traffic growth to 2031. Even at this level of demand there is negligible impact on the capacity of the junction approach.
- 2.11 Whilst the underpass may be perceived to be the ideal form of crossing, in practice some cyclists will prefer not to use it. The low level of cyclists and the long-term maintenance implications suggest that it does not provide value for money, when compared with the alternative at-grade crossing. It is therefore recommended that the cycle underpass is not pursued at this stage.

3. ALIGNMENT WITH CORPORATE PRIORITIES

3.1 Developing the local economy for the benefit of all

Whilst encouraging cycling in the county remains a high priority, it is not considered that the underpass provides a significantly better facility than the proposed alternative at-grade crossing. The economic benefits in respect of facilitating active lifestyles, reduced congestion and links to the city of Ely and the station would not be adversely affected.

3.2 Helping people live healthy and independent lives

The proposed at grade crossing is not considered to have a significant impact on the number of people walking and cycling along the route and should prove no less attractive than an underpass.

3.3 Supporting and protecting vulnerable people

There are no significant impacts.

4. SIGNIFICANT IMPLICATIONS

Implications	Team	Name of Officer Consulted
Resource	Finance	S Hayward
Statutory, Legal and Risk	Legal	M Kelly
Equality and Diversity	HR	T Oviatt-Ham
Engagement and Consultation	CS&T	M Miller
Localism and Local Member Involvement	CS&T and Democratic Services	T Oviatt-Ham
Public Health	Public Health	T Campbell

4.1 Resource Implications

There are no significant implications within this category in respect of the omission of the underpass, which did not form part of the original proposals.

4.2 Statutory, Risk and Legal Implications

The at grade crossing will be constructed across land that is being acquired for the new bypass so no new land take is required. The variations to the alignment are considered to be minor as far as any need to seek a change to the scheme planning permission is concerned but the granted non-material amendment will need to be withdrawn. The at grade crossing will be relatively close to a roundabout junction a location where traffic speeds will already be slowed and traffic signal will enable cyclists and pedestrians to get across the new bypass.

4.3 Equality and Diversity Implications

There are no significant implications within this category.

4.4 Engagement and Consultation Implications

Discussion on the underpass proposal have been undertaken with local members and stakeholders, and based on the initial design principles and costings, there may be local expectations that an underpass is the best deliverable option. The local members, along with other members of the Project Board, have been made aware of the cost and future maintenance issues, along with the proposed alternatives crossing. .

4.5 Localism and Local Member Involvement

There are no significant implications within this category.

4.6 Public Health Implications

See section 3.2.

Source Documents	Location
Ely Bypass Planning Application Initial Feasibility report Design underpass report	Room 311, Shire Hall, Cambridge .